DOCUMENT RESUME

ED 340 842 CE 059 675

AUTHOR	Helton, Betty G.; Griffin, Jennie
TITLE	Mathematics: Essential to Marketing. Student's Manual and Teacher's Guide.
INSTITUTION	Texas Univ., Austin. Extension Instruction and Materials Center.
SPONS AGENCY	Texas Education Agency, Austin.
PUB DATE	91
NOTE	597p.
AVAILABLE FROM	Extension Instruction and Materials Center, University of Texas, P.O. Box 7218, Austin, TX 78713-7218 (teacher's guide, order no. DE 116 C: $32.50; student manual, order no. DE 116 S: $12.50).
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052) -- Guides - Classroom Use - Instructional Materials (For Learner) (051)
EDRS PRICE	MF03 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Arithmetic; Assignments; Distributive Education; Facility Inventory; Financial Services; High Schools; Job Training; *Marketing; *Mathematical Applications; Merchandising; *Payroll Records; *Purchasing; Retailing; *Secondary School Mathematics; Teaching Guides
IDENTIFIERS	Cashiers; Financial Reports; Invoices

ABSTRACT

This document contains both a student's manual and a teacher's guide for high school mathematics essential to marketing. The student's manual contains 34 assignments within the following 11 units: (1) arithmetic fundamentals; (2) application of arithmetic fundamentals; (3) cashiering; (4) inventory procedures; (5) invoices; (6) computing employee earnings; (7) formulating a purchase plan; (8) purchasing merchandise; (9) finding retail price; (10) financial statement; and (11) personal mathematics. Each unit contains assignments that may contain objectives, problems, figures, technical learning concepts, and checking for understanding exercises. The teacher's manual contains the following: foreword and table of contents of student manual; lesson planning sheet; blank assignment forms for copying pretests and posttests, checking for understanding exercises, and guided and independent practices; and assignment answer keys for pretests, posttests, checking for understanding exercises, and guided and independent practices. (NLA)

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X 75
EMPLOYEE #
Sherri Terry
401 Oak T
ADDRESS
CHARGE ☐
ITEM
Dress, #927167
-20
PAY TO THE ORDER OF
NAL BANK
Total Retail Value
100
INVENTORY FORM
Counted by
Checked
On Hand

CE059675

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Mathematics: Essential to Marketing

Student's Manual

By

Betty G. Helton
and Jennie Griffin

Published by

The University of Texas at Austin
Extension Instruction and Materials Center
Division of Continuing Education

Developed under a contract with

Texas Education Agency
Austin, Texas

1991

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Printed in the United States of America

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FAX 512-471-7853

Stock Number DE 116 S

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Foreword to the Student's Manual

This is the most complete, versatile, and practical mathematics publication yet published by the Extension Instruction and Materials Center (EIMC). Those qualities are present because it was developed by two Marketing Education teachers, Jennie Griffin of Lee High School in San Antonio and Betty Helton of McCallum High School in Austin. They were determined that in one place students would be able to locate all the information about mathematics which their years of experience had shown to be useful to a career in marketing. The 34 assignments in the manual make it possible for students to do everything from reviewing their basic math skills to analyzing documents which are used by marketing managers.

The first two units are on arithmetic fundamentals and their application. Students will need to spend more or less time on these depending on what they already know, but in any case a review will make the rest of the manual easier.

After that, there are units on the mathematics, concepts, and procedures required for common functions performed by employees at the beginning levels in marketing. These include cashiering, inventory procedures, and working with invoices.

As the employee moves up the ladder in a career, it becomes important to be able to compute employee earnings, formulate purchase plans, and carry out the mathematics required to purchase merchandise wisely. Also, at higher levels, it is crucial to know how retail prices are set and how they affect profit. By learning these facts now a person will be preparing for advancement.

At a still higher level, going all the way up to the owner or manager of the store, it is vital to be able to make and analyze income statements and balance sheets, and to analyze graphs and charts that help in understanding what is happening in a business.

At all levels, personal mathematics are crucial to personal success. Two other subjects covered are checking accounts and loan applications.

The mathematics involved are relatively simple. It is necessary only to be able to add, subtract, multiply, and divide. Procedures to be learned are expressed usually as equations. That is—

Markup + cost of merchandise = retail price

These equations also lead to statements, such as "the markup is added to the cost of the merchandise to get the retail price." The statements are clearly related to word problems in the assignments. For example, "If the markup is $5.00 and the cost is $10.00, what is the retail price in dollars?"

Much of the important information revolves around knowing why each mathematical procedure is important, and who needs to be able to do the equation and use the results. For example, if you divide the markup in dollars by the retail price in dollars, you get the markup percentage. That figure is important because management may tell its buyers they have to get a certain markup percentage in order to pay expenses and make a profit.

In many ways, this manual is as much about terms and concepts as it is about mathematics. Many terms and concepts must be learned. These are emphasized at the beginning of some assignments, and at the end of others under the heading of "Technical Learning Concepts."

Assignments are organized to encourage you to move slowly and carefully and make certain you are learning. They start with objectives, so you know what you should achieve. Then there are explanations of the concepts and terms to be learned. Where there are mathematical procedures to learn, examples are given.

At several places in each assignment are subsections called "Checking for Understanding." These give you a chance to decide if you have learned what is important before you go on. You might be asked to do a mathematical procedure, or answer a question. If you are successful, you go on. If you fail, you study the material over. Answers to "Checking for Understanding" should not be written in this manual, but elsewhere. Unless directed otherwise by your teacher, do not write in this manual.

In addition, your teacher will have two sets of activities to do to make it even more certain that you succeed. The first is called a *guided practice*, and for it you will probably be getting help. The second is called *independent practice*, and is like soloing—you're on your own, but you've already had enough practice where you should do just fine.

The terms and mathematical procedures covered in this manual have been checked against publications used by marketers themselves. It is important to master both terms and procedures because they are required in specific jobs as a person progresses in a marketing career.

Jim Cockrum
Marketing Education Curriculum Specialist

Acknowledgments

Special thanks for their advice on this manual should go to these members of the EIMC Project Advisory Committee for 1989-90—John E. Lutz III, Lutz Realty, Fort Worth, and Dr. Marcy McComas Norwood, University of Houston, College of Education. They served on the small group which gave special attention to this product. In addition, other members of the Project Advisory Committee contributed insight and ideas.

Credit is also due for this publication—as for other EIMC materials—to the Project Advisory Committee as a whole, which met twice and provided other contributions through the year. It includes these other members: Janie Anaya, of McAllen Memorial High School; Laurelyn Carlisle, teacher educator at Southwest Texas State University in San Marcos; Suzanne Faught of Lampasas High School; Kris Gossom of Wichita Falls High School; Dr. Jerry Moorman, teacher educator at the University of North Texas, Denton; Al Mozisek of Churchill High School in San Antonio; and Leigh Swanson, manager of Talbot's at the Arboretum in Austin.

Participating with the PAC group were Berry Sullivan, Emmett Eary, and Ward McCain, of the Marketing Education staff at the Texas Education Agency. Dr. Barbara Selke-Kern, Director of Materials Development at EIMC, has also helped make this publication possible.

A number of ideas and recommendations came from a meeting of the Marketing Education Curriculum Advisory Task Force in San Antonio on August 9, 1989. In addition to most of the people already mentioned, those present included Betty Blair of Dumas High School; Sheryl Burlison of Bryan High School; Joseph A. Gonzales of Worthing High School, Houston; Bob Hettenhausen of Johnston High School, Austin; Neva Irwin of Gregory-Portland High School; Rhonda McGinnis of Tivy High School, Kerrville; Adell Morton of Allen High School; Sue Richmond of Berkner High School, Richardson; Gabriela Salomon-Reyes of Del Valle High School, El Paso; Allene Schmitt of Bellville High School; Nelda Shipp of Mineola High School; Tony Valek of MacArthur High School, San Antonio; and Carolyn Willig of McCullough and Oak Ridge High Schools, Conroe.

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

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It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulation by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs of activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

ASSIGNMENT 1

Addition and Subtraction of Whole Numbers, Decimals, and Fractions

---

Objectives: When this assignment has been completed, you should be able to—

1. *explain basic addition and subtraction calculations important in marketing;*
2. *continue to sharpen your number sense by applying basic principles of addition and subtraction to common problems in marketing; and*
3. *demonstrate increased accuracy and speed in addition and subtraction.*

Have you ever been overcharged for an item or been handed the wrong amount of change? Or, have you ever overcharged or undercharged a customer? Could these incidents have happened because of mathematical errors? Unfortunately, the answer is probably "yes," and it happens all too often. Also, situations like these can be embarrassing to you as well as reflecting poorly on the company or store where the situation occurred.

Most mathematical errors are made in subtraction and addition. With practice and attention to the details of these operations, you can gain proficiency and accuracy. Even though computers have taken many of the routine adding and subtracting tasks from daily calculating, you may have many unexpected opportunities to use your skills. You may already be competent in both addition and subtraction, but the day-by-day routines of marketing call for both speed and accuracy in situations in which someone or something may be also calling for your attention. What you can now do you will need to do better and faster than you might expect you can.

The use of addition and subtraction is required in almost every phase of business operation from stockkeeper to executive levels. Calculating the hours on your weekly time card, determining the difference your discount makes when you purchase an item with your employee's discount, or counting key item stock before the computer printout is available are examples of ways you may be depending on your skills in addition and subtraction without realizing it. Errors made in calculating a time card or discounts can lead to inaccuracies and ultimately cost the business money and time.

Simple Addition and Subtraction

To help you review what you probably already know, here are basic steps and key points used in *addition:*

1. Write the figures to be used in columns that are carefully lined up so it is easy to keep track of your calculations. It's a good idea to place the columns far enough apart to be easily distinguished, without wasting space. Otherwise you might add figures in one column to those in another.

$$\begin{array}{r} 1923 \\ \underline{+1150} \end{array}$$

2. Add each column individually, starting at the right.

$$\begin{array}{r} 1923 \\ +1150 \\ \hline ?<73 \end{array}$$

3. When the result in a column is more than 9, carry the left number or numbers to the next left column and add it in there. Sometimes it is helpful to put the carried number at the top of the column in which it will be used. But if you're working as fast as you need to, you'll probably just have to keep the carried number in mind.

$$\begin{array}{r} 1 \\ 1923 \\ +1150 \\ \hline 3073 \end{array}$$

To help you review what you probably already know, these are the basic calculations used in **subtraction**:

1. Write the figures to be used in columns that are carefully lined up so it is easy to keep track of your calculations. It's a good idea to have the columns far enough apart to be easily distinguished, without wasting space:

$$\begin{array}{r} 1923 \\ -1150 \\ \hline \end{array}$$

2. Subtract one column at a time, starting at the right.

$$\begin{array}{r} 1923 \\ -1150 \\ \hline ???3 \end{array}$$

3. When necessary, borrow from the column to the left of the one you want to subtract. For example, in this case 5 can't be subtracted from 2, but it can be from 12. So you take 10 from the column to the left (the 9) and add it to the 2. Now 12 – 5 equals 7.

$$\begin{array}{r} 19{}^{1}23 \\ -1150 \\ \hline 773 \end{array}$$

4. Keep track of your borrowings, either mentally or by marking on the paper.

$$\begin{array}{r} 8 \\ 19{}^{1}23 \\ -1150 \\ \hline 773 \end{array}$$

Checking for Understanding: Adding and Subtracting

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Review your adding and subtracting skills using the following two common examples from marketing. Similar problems will be in the guided practice exercise for this assignment.

Hours worked, June	
June 4–10	12 hours
June 11–17	15 hours
June 18–24	14 hours
June 25–30	12 hours
	?? hours

Sales Slip with Discount	
Price	$100
Discount	–14
	$??

Addition and Subtraction of Decimals

Two additional rules must be followed when adding and subtracting numbers involving decimals:

1. If the numbers are arranged in columns, be sure that the decimal points are directly under one another.

Example: 0.35
1.45
110.66

2. If the numbers are arranged in rows, be sure to add a decimal point and two zeros after numbers representing dollars when other numbers have both dollars and cents.

$6.00	6.65	0.32	1.91	1.00
9.44	3.00	1.44	1.00	0.65

Checking for Understanding: Addition and Subtraction of Decimals

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Write the following series of numbers first in a column, then in rows: $9.23, $6.00, $12.01, $0.11, $1.00.

Decimals, Percent, and Fractions

The decimal point marks the spot at which numbers begin to be less than one. In 0.2, the two means two-tenths of one. In 0.25, the twenty-five means 25 hundredths of one. If dollars are to the left of the decimal point, then cents are to the right.

When there are two numbers to the right of the decimal point, they can be expressed as a percent figure. *Percent* means per one hundred. In business, percent compares a number with

100. Using percent gives a common basis to make comparisons between or among many different items. For example, two salespersons may have different total sales, but it is still possible to compare how much more they sold this year than last.

To make a decimal into a percent, the decimal point is moved two places to the right: 0.01 equals 1 percent. 0.15 = 15 percent. 1.45 equals 145 percent.

A percent expressed as a decimal can be compared to other fractions. For example, 50 percent is the same as 0.50, and that is the same as 50/100. Also, 50/100 is the same as 1/2.

When numbers can be expressed in different ways yet remain equal, then each of the expressions is called an equivalent of the other. Knowing that fact can be quite useful.

For example, a cashier may see a price ticket marked 40% off. To find out how how much is being taken off in dollars and cents, it is necessary to use the decimal equivalent – 0.4. The cashier (or salesperson) multiplies the price by 0.40 to get how much is being saved, then subtracts that from the full price.

Example: A $250.00 suit is being sold for 25% off. $250.00 × 0.25 = $62.50 off, leaving a sales price of $187.50.

Many other possibilities exist, so it is a good idea to memorize the ten most common equivalents. You might see a tag labeled 1/3 off, and need to put down the dollars and cents figure.

Common Fraction, Decimal, and Percent Equivalents

1/4 = 0.25 = 25%

1/2 = 0.50 = 50%

3/4 = 0.75 = 75%

1 = 1.00 = 100%

1/5 = 0.20 = 20%

2/5 = 0.40 = 40%

1/3 = 0.333 = 33.3% (or 0.334 = 33.4%)

2/3 = 0.666 = 66.6% (or 0.667 = 66.7%)

1/6 = 0.166 = 16.6% (or 0.167 = 16.7%)

1/8 = 0.125 = 12.5%

1/10 = 0.10 = 10%

In the list above, decimal equivalents are stated only to three places after the zero. This may not be accurate enough when doing certain calculations. For example, the decimal equivalent of 1/3 can be 0.33333 when carried to five places. In this list it was given two ways, as either 0.333 or 0.334. Using one or the other would give the advantage to different persons in a transaction. Calculations involving large sums of money often require many more places after the decimal.

When some other fraction is involved, the percent can be calculated using this procedure:

1. Divide the denominator (bottom number) into the numerator (top number) to find a decimal.
2. Round the decimal to the nearest hundredth.
3. Shift the decimal point two places to the right to find the percent.

Checking for Understanding: Finding a Percent Equivalent to a Fraction

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

What percent is the equivalent of 3/5? ________

Changing a Percent to a Decimal

To use percent in solving problems in the workplace, the first step is often to change a percent into its decimal equivalent. This is done simply by moving the decimal point two places to the left and removing the percent sign.

Checking for Understanding: Changing a Percent to a Decimal

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

60% = ____________

Finding Common Denominators

Fractions have been a source of trouble for people for a long time. Although some people may wish they had never been discovered, fractions are exact descriptions of important quantities and cannot be ignored. There are specific uses for adding and subtracting fractions in marketing, the most common being when calculating time worked. In order to find a total for the time sheet calculation below, you have to know that 1/4 hour can be used as a common denominator when adding.

Hours worked, July 16-21	
Monday	4 1/2 hours
Tuesday	3 1/4 hours
Wednesday	off
Thursday	2 3/4 hours
Friday	5 hours
Saturday	8 hours

The first thing to remember when adding or subtracting fractions is that fractions can only be added or subtracted when their denominators are the same. The denominator is the bottom portion of the fraction. In 1/6 the denominator is 6. In 1/2 the denominator is 2. To add 1/2 to 1/6, it is first necessary to find a common denominator.

Any common denominator can be used when adding and subtracting fractions, but it is easier to use the smallest common denominator.

A first step in finding the denominator is to examine those in the problem to see if there is any one into which all the others will divide evenly. The fractions 1/2 and 1/6 could have 6 as a common denominator.

If that doesn't work, try multiplying all the denominators. For example, 1/2 and 1/3 will have 6 as a common denominator.

Sometimes you have to multiply all the denominators, then see if there is one number they all divide into. For example, consider 1/2, 1/3, and 1/8. Multiplying 2 × 3 × 8 gives 48, but all three numbers will actually divide into 24.

In arriving at the fractions you will use, you must make sure not to change the values of any of the fractions involved. The easiest way to do this is to multiply or divide the numerator (top of the fraction) by the same number used to multiply or divide the denominator.

Examples:

3/12 is converted to 1/4 by dividing both numerator and denominator by 3.
3/3 = 1 and 12/3 = 4
So 3/12 is 1/4

1/6 is increased to 5/30 by multiplying both numerator and denominator by 5.
1 × 5 = 5
And 6 × 5 = 30
So 1/6 = 5/30

Checking for Understanding: Finding Common Denominators

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Find the smallest common denominators in these three situations:

1. 1/2 + 2/4 + 1/3 have a common denominator of _______ .
2. 1/3 + 1/5 + 1/9 have a common denominator of _______ .
3. 1/3 + 1/9 + 1/6 have a common denominator of _______ .

Adding Mixed Numbers

The most common fractions dealt with on a daily basis are fractions in combination with whole numbers. These kinds of numbers are called **mixed numbers.** In the addition or subtraction of mixed numbers, three operations are involved. The whole numbers are added or subtracted, the fractions are added or subtracted; and the two totals are combined to find the complete total.

Examples:

1. Adding fractions

1/2 + 2/3 = ?   1/2 = 3/6
2/3 = 4/6
7/6 = 1 1/6

The first step was to find a common denominator: 6. The 7/6 that resulted from adding 3/6 to 4/6 is called an **improper fraction** because the numerator is greater than the denominator. This fraction must be changed to a mixed number by dividing the denominator into the numerator: 7 divided by 6 = 1 1/6.

2. Adding mixed numbers

Notice the similarity to that example when adding mixed numbers below:

$$3\ 3/4 + 9\ 7/8 = ? \quad \begin{array}{l} 3\ 3/4 = 3\ 6/8 \\ 9\ 7/8 = \underline{9\ 7/8} \\ \\ 12\ 13/8 = 12 + 1\ 5/8 = 13\ 5/8 \end{array}$$

As with the fractions, a common denominator must be found first. The fractions are added, giving 13/8, and the whole numbers are added, to make 12. Then the improper fraction is changed to the mixed number 1 5/8 which is added to 12 to make 13 5/8.

Checking for Understanding: Adding Mixed Numbers

1. Add 1/6 to 1/4. Answer ____________
2. Add 4 3/4 to 8 3/8. Answer ____________

Subtracting Fractions and Mixed Numbers

In subtracting fractions, the steps followed are the same as for adding fractions, except you subtract in the final step.

However, unlike subtracting fractions, the subtraction of mixed numbers may be a little more involved. In the subtraction of mixed numbers, the fractional part of one number may be smaller than the fractional part of the number which is to be subtracted. When this is the case, it is necessary to borrow from the whole number to make the fraction large enough to perform the subtraction.

Examples:

1. Subtracting fractions: $1/4 - 1/6 = \begin{array}{r} 3/12 \\ \underline{-2/12} \\ 1/12 \end{array}$

2. Subtracting mixed numbers: 21 2/3 – 16 3/4 = ?

$$\begin{array}{rrcr} 21\ 2/3 = & 21\ 8/12 & = & 20\ 20/12 \\ & \underline{-16\ 3/4} & = & \underline{-16\ 9/12} \\ & & & 4\ 11/12 \end{array}$$

In the mixed number problem, 1 is **borrowed** from the 21 and converted to the fraction 12/12, which is added to 8/12 making 20/12. The whole number 21 was reduced to 20 by the borrowing.

Checking for Understanding: Subtracting Fractions

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

1. Subtract 2/3 from 9/12. Answer ________________
2. Subtract 12 5/6 from 15 9/12. Answer ____________

ASSIGNMENT 2

Multiplication and Division of Whole Numbers, Decimals, and Fractions

---

Objectives: When this assignment has been completed, you should be able to—

1. *do basic multiplication and division calculations used in marketing;*
2. *sharpen number sense by applying basic principles of multiplication and division; and*
3. *demonstrate increased speed and accuracy in multiplication and division of whole numbers, decimals, and fractions.*

As in the case of addition and subtraction, it is important that skill be acquired and maintained in the multiplication and division of whole numbers, decimals, and fractions. Obviously, your job may never require you to sit down and work out a long multiplication or division problem, but you will use these operations frequently in your job. It is extremely important that you be able to perform these operations quickly and accurately.

Multiplication is required in computing sales tax or in figuring the total cost of items at a unit price. Division will be used in cases such as figuring the cost of one item where the price is given for multiple units. Both multiplication and division are important in many of the mathematical calculations performed by management and owners of stores.

These are basic terms you need to know when reviewing the two operations:

multiplicand—number being multiplied
multiplier—number being multiplied by
product—answer as a result of multiplication
dividend—number being divided
divisor—number being divided by
quotient—answer as a result of division
rounding—a suboperation used to reduce the number of digits after a decimal point. For example, 1.3331 could be rounded *up* to become 1.334. It is important to know the specific rule of rounding used in each situation.

Multiplication of Whole Numbers and Decimals

Finding the product of two whole numbers or of decimals is basically the same. However, when multiplying decimals, one additional step is required. After the numbers in the product of the decimals are obtained, you must place the decimal point in the correct position by counting the number of digits to the right of the decimal points in both the multiplier and the multiplicand. This sum is the number of digits that will be after the decimal point in your product.

Example: When multiplying 5.67 by 12.3, the simple multiplication is done first as if they were whole numbers:

$$\begin{array}{r} 5.67 \\ \underline{\times\ 12.3} \\ 1701 \\ 1134 \\ \underline{567} \\ 69.741 \end{array}$$

Next you add the two digits to the right of the decimal in the multiplier (5.67) and the one digit to the right of the decimal in the multiplicand (12.3). That shows that the product in this problem must have three digits to the right of the decimal point. The decimal point should be placed after the 9, making the product 69.741.

One common rule of rounding is to round **up** if there is any digit after the second one after the decimal point in the answer. In this case, the answer would become 69.75. That rule will be followed in this book, with the exception of determining decimal equivalents. For greater accuracy, decimal equivalents may have three, four, or even more digits after the decimal point.

Checking for Understanding: Multiplication of Whole Numbers and Decimals

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Do the following problems, placing the decimal point correctly where needed.

62 × 75 = ____________________

439 × 87 = ____________________

219.3 × 46.7 = ________________

5.004 × 0.0706 = ______________

Division of Whole Numbers and Decimals

Division of decimals involves the same mechanics as division of whole numbers. This discussion covers both situations. The added step when decimals are involved is placing the decimal point in the correct position. The divisor must be converted to a whole number by moving the decimal point to the right until the divisor is a whole number. For example, 12.95 becomes 1295.00 or just 1295. When the decimal point is moved in the divisor, however, it must also be moved an equal number of digits to the right in the dividend. This may or may not make the dividend a whole number, but it does simplify the problem of placing the decimal in the correct position in the quotient.

Example:

If $539.00 were allotted to buy ladies' scarves at $12.25 each, how many scarves could be ordered? In dividing $539.00 by $12.25, the number $12.25 is converted by moving the decimal two places to the right. Thus, 12.25 becomes 1225. Then the same operation must be performed on the dividend, $539.00. It becomes 53900. The problem can then be worked by regular division:

$$\begin{array}{r} \underline{44.} \\ 12.25./\overline{539.00.} \\ \underline{4900} \\ 4900 \\ \underline{4900} \end{array} \quad \text{OR, when decimals are moved:} \quad \begin{array}{r} \underline{44} \\ 1225/\overline{53900} \\ \underline{4900} \\ 4900 \\ \underline{4900} \end{array}$$

After moving the decimal in the dividend the same number of digits it was moved in the divisor, if the dividend remains a decimal rather than a whole number, the decimal point in the quotient is placed directly above the decimal point in the dividend.

$$12.50/\overline{12.5125} \quad = \quad 1250/\overline{1251.25}$$

More zeros can be added after the decimal in the dividend, in order to carry the quotient out more places, without affecting the position of the decimal point in the quotient.

Checking for Understanding: Division of Decimals, Placing the Decimal Point

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Arrange the following problems so they are ready to work. Use arrows to show what you did.

40.46 divided by 0.07 =

3.699 divided by 246.6 =

Multiplying and Dividing When Fractions Are Involved

Although there are procedures for multiplying and dividing when fractions are involved, the most practical approach is to use decimal equivalents. If someone owns 1/4 of a business, they also own 0.25. The decimal equivalent of 0.25 can be used on a calculator, but the fraction 1/4 cannot. If money is involved, at some point you'll have to go to a decimal equivalent anyway.

It is quite useful to memorize the common fraction, decimal, and percent equivalents given in Assignment 1. Otherwise, you can simply divide the numerator by the denominator to get a decimal equivalent for any fraction. Then you can use that number in the actual problem.

Example:

A produce item sells for 62 1/4 cents a pound. The customer buys 20 pounds. If you've forgotten the decimal equivalent for 1/4, then divide 1 by 4. That gives 0.25. Then convert the cents to dollars and multiply. $0.6225 × 20 = $12.45.

Checking for Understanding: Multiplying and Dividing Using Fractions

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

Find the decimal equivalent for 1/5. Answer__________________

Use that equivalent to multiply 6 1/5 by 2. Answer______________

Use that equivalent to divide 16 1/5 by 4 1/5. Answer____________

ASSIGNMENT 3

Weights and Measures

Objectives: When this assignment has been completed, you should be able to—

1. *solve problems involving weights and measures in the U.S. system;*
2. *identify abbreviations associated with weights and measures; and*
3. *compare metric measurements to U.S. system measurements.*

In almost all types of selling and other phases of marketing, weights and measures are used. If a customer wanted to purchase a carpet for her 17 ft by 23 ft den, could you tell how many yards are needed? If another customer wanted a container to measure 12 qt of liquid, could you help find the correct size product to meet his needs? You could do both if you knew how many feet are in a yard, or how many quarts are in a gallon. To be a valued salesperson, you must know how to solve problems using measurements.

This assignment presents various types of measures and weights that anyone in marketing will need to know. They are divided into what they measure, and tell how one unit relates to another. It is important to learn both the numbers and the abbreviations given for the various units of measurement.

Learning the following information can help you in various marketing situations.

Linear measure (length and distance)
- 12 inches (in.) = 1 foot (ft)
- 3 ft (36 in.) = 1 yard (yd)
- 5280 ft = 1 mile (mi)
- 16.5 ft = 1 rod (rd)

Square measure (length × width = area)
- 144 sq in. = 1 sq ft
- 9 sq ft = 1 sq yd
- 43,560 sq ft = 1 acre

Cubic measure (length × width × depth = volume)
- 1728 cu in. = 1 cu ft
- 27 cu ft = 1 cu yd
- 231 cu in. = 1 gallon (gal)

Dry measure
- 2 pints (pt) = 1 quart (qt)
- 8 qt = 1 peck (pk)
- 4 pk = 1 bushel (bu)

Liquid measure
- 2 pt = 1 qt
- 4 qt = 1 gallon (gal)

Avoirdupois weight (American and English system of weight)
- 16 ounces (oz) = 1 pound (lb)
- 100 lb = 1 hundredweight (cwt)
- 2,000 lb (20 cwt) = 1 ton (T)

Measure of time
- 60 seconds (sec) = 1 minute (min)

60 minutes = 1 hour (hr)
24 hours = 1 day
7 days = 1 week
12 months = 1 year
52 weeks = 1 year
365 days = 1 year

Counting

12 units = 1 dozen (dz)
12 dz (144 units) = 1 gross (gr)

Stationer's measures

24 (sometimes 25) sheets = 1 quire (qr)
20 quires = 1 ream (rm)
500 sheets = 1 ream (rm)

Using U.S. Units of Measurement

The above information is simple to use and is either self-explanatory or deals with information you have had elsewhere in math. It mostly involves conversions or equations that compare one unit to another. For example, if a person buys 3 reams of paper and wants to know how many sheets that is, you just look up stationer's measure above and multiply 3 reams by 500 sheets each to get a total of 1,500 sheets for 3 reams. To look at that in an equation:

3 reams × 500 sheets each = 1,500 sheets

In some cases, an equation for your use is included:

Length × width × depth = volume or cubic measure. OR, 12 in. × 12 in. × 12 in. = 1,728 cu in. or 1 cu ft

For most situations either multiplication or division is required. Sometimes both are needed. Here's an example. When a salesperson sold a carpet 17 ft × 23 ft, she had to determine how many square yards of carpeting were needed because carpeting is sold by the square yard. First, it was determined that 391 sq ft of carpet would be needed, by multiplying 17 × 23 ft. Then because there are 9 sq ft in 1 sq yd, the 391 sq ft was divided by 9. The result was 43.4 sq yd of carpet sold to the customer.

The usefulness of memorizing the abbreviations is shown in this example. When a salesperson sold a container that can be used for measuring liquid, he knew what the abbreviations on the package meant. The box indicated that the container would hold "8 qt" (8 quarts) or "2 gal" (2 gallons). Since the customer had asked for a container that could hold up to 8 quarts, the salesperson quickly translated the "8 qt" to mean "8 quarts" and selected the correct size for the customer.

Checking for Understanding: Converting U.S. Units of Measurement

Note: Unless otherwise directed by your teacher, do not use this space to calculate and write your answer. This book is meant to be reusable.

If a customer buys 2 quarts of strawberries, how many pints does she get? ________

How many yards are in a mile? __________

What does 1 rd equal? __________

Comparing U.S. and Metric Measurement

Today, items for sale may be marked in either U.S. or metric measurement—or both. This means that a salesperson or a cashier may be asked how one measurement compares with another. A few approximate conversions may be learned, but there are also tables in dictionaries and other sources. Below are some **approximate** comparisons between the systems. Each series starts with the U.S. units, which are followed by the metric units.

Length

1 inch = 25 millimeters
1 foot = 30 centimeters
1 yard = 90 centimeters
1 yard = 0.9 meter
1 millimeter = 0.04 inch
1 meter = 39.37 inches

Weight

1 pound = 454 grams
1 pound = 0.45 kilogram
1 gram = 0.035 ounce
1 gram = 0.002 pound
1 kilogram = 2.2 pounds

Capacity, dry measure

1 bushel = 35 liters
1 liter = 0.9 quart

Capacity, liquid measure

1 pint = 0.47 liter
1 quart = 0.95 liter
1 gallon = 3.78 liters
1 liter = 2.1 pints
1 liter = 1.06 quarts
1 liter = 0.26 gallon

This table can also be used directly or by computations. For example, if someone wants to know how many pounds are in a kilogram, the answer is read directly: 2.2 pounds. If they want to know how many quarts they are getting in a 2-liter bottle, then 2 liters can be multiplied by 1.06 quarts to get an answer of 2.12 quarts.

ASSIGNMENT 4

Simple Interest

Objectives: When this assignment has been completed, you should be able to—
1. *define* interest, principal, time, *and* rate *as the terms relate to simple interest;*
2. *compute simple interest by the cancellation method, given proper facts;*
3. *compute simple interest by the 60-day, 6% method, given proper facts; and*
4. *use a simple interest table to determine amounts of interest.*

For both personal and business reasons, you need a working knowledge of simple interest. For personal reasons, this knowledge can help you make wise decisions when borrowing money or when starting a savings account. On the other hand, knowledge of simple interest from the business standpoint will help you to understand how much vendors must charge for late payments of invoices—and that this rate must be computed by exact number of days. Also, you will see the advantages of paying early and receiving an anticipation discount. (See Assignment 14, "Cash Discounts," on other types of discounts, figured differently.)

Banks or other lending institutions charge interest on loaned money. In making a wise decision when borrowing money, you need to know the exact interest you have to pay and the day on which the payment and interest will be due. Merchants often borrow money, too. The use of borrowed money (credit) is one of the primary factors in the accumulation of capital by a business. Many businesses borrow money to increase their volume of sales and to expand their business. Increased sales volume can add profits at a higher rate than the interest charges; therefore, the business can expand its capital assets.

Simple interest is the interest you would pay on something if you had the use of the money borrowed for the entire stated period. In the case of an installment loan, a different approach to calculation must be used, as discussed in Assignment 34, "Loan Applications."

Learning these concepts will help in understanding the rest of the assignment:

interest—money paid for the use of money, expressed as dollars
credit—borrowed money
principal—the amount of money borrowed
time—the length of time for which the money is borrowed
rate—the percentage or decimal fraction agreed upon when the money is borrowed to use in computing the interest in dollars.

Methods Used for Computing Interest

The Cancellation Method

This is the equation for determining interest for one or more years:

Principal in \$ × rate as a decimal fraction × time in years = interest in \$

For $100.00 borrowed at 10% for a year:

$$\$100 \times 0.10 \times 1 = \$10.00 \text{ interest}$$

Using the simple interest equation, it is easy to figure interest if the loan is for one or more years. Often, though, money is borrowed for less than a year, perhaps even a few days. A good example is when a retailer requests an **anticipation discount** for paying a bill before the due date. The retailer considers the payment as a form of short-term loan, and expects to earn interest, even if only a few days are involved. The situation when a short term is involved is made easier to calculate by the cancellation method.

The equation used is:

$$\frac{\text{Principal} \times \text{rate} \times \text{time in days}}{360 \text{ days}^{**}} = \text{interest in } \$$$

**In most businesses, 360 days is used as a year rather than 365, to simplify the equation.

Example: This is what is done to find the interest on $120.00 for 72 days at 9%.

In step 1, the equation is set up. The principal, the rate expressed as a decimal, and the number of days are written above the line. The number of days in a year are written below the line.

In the next several steps, numbers above and below the line are cancelled when they can be divided by the same number. When cancelling is no longer possible, the calculation is done.

In the final step, the interest may be rounded off using the store rules to give a dollars and cents answer. Usually numbers 5 or greater cause the number to the left to be increased. For example, 0.555 would become 0.56. Other possibilities are to always round down, or always round up, so 0.555 could become either 0.55 or 0.56, depending on which rule is followed. *For the rest of this assignment and when doing practice exercises, always round up.*

This is how the cancellation method works:

Step 1. $$\frac{\$120 \times 0.09 \times 72}{360} = (?)$$

Step 2. $$\frac{\$\overset{1}{\cancel{120}} \times 0.09 \times 72}{\underset{3}{\cancel{360}}} = (?)$$

Step 3. $$\frac{\$\overset{1}{\cancel{120}} \times 0.09 \times \overset{24}{\cancel{72}}}{\underset{\underset{1}{\cancel{3}}}{\cancel{360}}} = (?)$$

Step 4. $$\frac{\$1 \times 0.09 \times 24}{1} = \frac{\$2.16}{1} = \$2.16$$

Checking for Understanding: Using the Cancellation Method

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

1. Find the interest on $140.00 at 5% for 40 days. Show your cancellations.
   Answer ___________

2. Find the interest on $360.00 at 12% for 84 days. Show your cancellations.
   Answer ___________

Using Calculators and Interest Tables

Because time is valuable and employees in marketing are often in a hurry, various kinds of mathematical assistance are available. Computers can do some of the more complicated mathematics, but employees also can benefit from the use of hand-held or desktop calculators. Also useful are various printed tables. As a practical matter, it helps to know how to do the written math as well as how to make use of any assistance available. The equation used may be the same.

If you know the mathematical formula involved, calculators are simple to use. For example, consider this equation, which you have already used:

$$\frac{\text{Principal} \times \text{rate} \times \text{time in days}}{360 \text{ days}^{**}} = \text{interest in } \$$$

With a calculator you would first multiply the principal times the rate. Then you would multiply that answer by the time in days. Then you would divide that answer by 360 days. All that would probably take less time to do than to read about.

Interest tables are also simple to use. Many kinds are available, designed for specific situations. Usually they show the most likely interest rates across the top, and the most likely time periods on the side.

To learn how interest tables can help, you can work with a simple interest table that is based on what would be paid for a loan of $1.00. Figure 1 shows how one such table looks. Although the interest rates at the top are lower than many current rates, the table can be applied to higher rates and longer times. Here is the general method:

First, find the line for the number of days in the left-hand column.

Next, move horizontally along that line to the column for the required interest rate.

Finally, multiply the amount in the intersection by the principal to get the dollar amount of interest required.

Example: Find the interest on $610.00 for 21 days at 4%.

Step 1. Begin in the left-hand column at 21 days. Move directly across to the 4% rate column. The figure found at the intersection is 0.00233. This is the interest on $1.00.

Step 2. Multiply 0.00233 by the principal of $610.00.
0.00233 × $610 = $1.4213

Step 3. Round the $1.4213 up to $1.43.
$1.43 is the interest on $610.00 at 4% for 21 days.

For higher rates, you simply find and add amounts for the total percent you want. If you want to find the interest at 11%, you can add the value for 6%, which is 0.00350, to the value for 5%, which is 0.00292. The amount you work with is 0.00642. That number multiplied by $610.00 gives an answer of $3.916, or $3.92 for interest when rounded up.

You can also use the table for more than 30 days, simply by locating intersections for days that add up to the number of days you want. For example, for 35 days at 6% you would add the amounts 0.00333 and 0.00250 to get the total of 0.00583. That amount multiplied by the $610.00 principal equals 3.556 or $3.56. (Using the original equation above, you would get a result of $3.558 or $3.56.)

Checking for Understanding: Using a Simple Interest Table

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

1. Using the interest table, and rounding up the answer, find the interest on $480.00 for 25 days at 6%. Answer _______
2. Using the interest table, and rounding up the answer, find the interest on $1,600.00 for 16 days at 3%. Answer __________

SIMPLE INTEREST TABLE

Interest on $1.00 on a 360-Day Year Basis

Days	1%	2%	3%	4%	5%	6%
1	.00003	.00006	.00008	.00011	.00014	.00017
2	.00006	.00011	.00017	.00022	.00028	.00033
3	.00008	.00017	.00025	.00033	.00042	.00050
4	.00011	.00022	.00033	.00044	.00056	.00067
5	.00014	.00028	.00042	.00056	.00069	.00083
6	.00017	.00033	.00050	.00067	.00083	.00100
7	.00019	.00039	.00058	.00078	.00097	.00117
8	.00022	.00044	.00067	.00089	.00111	.00133
9	.00025	.00050	.00075	.00100	.00125	.00150
10	.00028	.00056	.00083	.00111	.00139	.00167
11	.00031	.00061	.00092	.00122	.00153	.00183
12	.00033	.00067	.00100	.00133	.00167	.00200
13	.00036	.00072	.00108	.00144	.00181	.00217
14	.00039	.00078	.00117	.00156	.00194	.00233
15	.00042	.00083	.00125	.00167	.00208	.00250
16	.00044	.00089	.00133	.00178	.00222	.00267
17	.00047	.00094	.00142	.00189	.00236	.00283
18	.00050	.00100	.00150	.00200	.00250	.00300
19	.00053	.00106	.00158	.00211	.00264	.00317
20	.00056	.00111	.00167	.00222	.00278	.00333
21	.00058	.00117	.00175	.00233	.00292	.00350
22	.00061	.00122	.00183	.00244	.00306	.00367
23	.00064	.00128	.00192	.00256	.00319	.00383
24	.00067	.00133	.00200	.00267	.00333	.00400
25	.00069	.00139	.00208	.00278	.00347	.00417
26	.00072	.00144	.00217	.00289	.00361	.00433
27	.00075	.00150	.00225	.00300	.00375	.00450
28	.00078	.00156	.00233	.00311	.00389	.00467
29	.00081	.00161	.00242	.00322	.00403	.00483
30	.00083	.00167	.00250	.00333	.00417	.00500

Figure 1

ASSIGNMENT 5

Percentage, Base, and Rate

Objectives: When this assignment has been completed, you should be able to—

1. *define the terms* percentage, base, *and* rate;
2. *show the relationship between these terms; and*
3. *find percentage, rate, or base when two of the factors are known and the third must be found.*

If you read in your school paper that 75% of your graduating class of 500 students were enrolled in at least one vocational class during the past year, would you know how many of your classmates were enrolled?

From the statement you know that 75 out of every 100 graduates were enrolled in vocational education. This information is the **rate** at which students from your school were enrolled in vocational education. The total number of students who were enrolled was given as 500, and that number is the **base**. The **percentage** would be the actual number who were enrolled in a vocational class, which you can find to be 375 students.

If any two of those quantities are known (base and rate, rate and percentage, or percentage and base), the third can be found through arithmetic.

Understanding these definitions will help in learning the equations that help you determine what you want to know.

base—the total number. It can be stated as a number, or as a dollar amount.
percentage—a part of the whole. It can be stated as a number, or as a dollar amount.
rate—the percent or decimal equivalent that shows how the percentage is related to the base. Rate is usually stated as a percent figure, such as 5%, but in problems it is a decimal equivalent, 0.05. The term **percent** may also refer to the rate.

Key Formulas (Equations)

1. To find the *base:* $\frac{\text{percentage}}{\text{rate}} = \text{base}$ OR $\frac{375}{0.75} = 500$
2. To find the *percentage:* $\text{base} \times \text{rate} = \text{percentage}$ OR $500 \times 0.75 = 375$
3. To find the *rate:* $\frac{\text{percentage}}{\text{base}} = \text{rate}$ OR $\frac{375}{500} = 0.75$

Using the Key Formulas (Equations)

Examples: Consider the following situations.

1. Elizabeth earned $160.00 last week. She spent $64.00 for a new swimsuit. What percent of her earnings did the suit cost her?

   Solution: Given are the percentage, or part of the whole ($64.00), and the base ($160.00). The rate is found using equation 3 above. The percentage (part of the whole) is divided by the base (or whole).

   $64/160 = \text{rate} = 0.40 = 40\%$

2. A recent fire destroyed 30% of the stock in a local computer store. If the stock was valued at $23,040,000.00, how much was lost by the owner?

   Solution: Given are the rate (30%) and base ($23,040,000). To find percentage, multiply the rate times the base (equation 2, above). Remember, 30% = 0.30.

   $0.30 \times \$23{,}040{,}000 = \$6{,}912{,}000$

2. The Hometown Variety Store spends $1,500.00 a month for rent. This is 20% of its gross profit. What is the store's gross profit?

Solution: Given are the percentage ($1,500.00) and the rate (20%). The equation for finding the base is percentage/rate.

$$\frac{1{,}500}{20\%} = \frac{1{,}500}{0.20} = \$7{,}500$$

Checking for Understanding: Finding Percentage, Base, or Rate

Note: Unless otherwise directed by your teacher, do not use this space to calculate and mark your answer. This book is meant to be reusable.

1. Illustrate using an equation the relationship between percentage, base, and rate.
   Answer ___________
2. If the base is 1,500 and the rate is 60%, what is the percentage?
   Answer ___________
3. If the rate is 20% and the percentage is 230, what is the base?
   Answer ___________
4. If the percentage is 735 and the base is 2,100, what is the rate?
   Answer ___________

ASSIGNMENT 6

Extensions

Objectives: When this assignment has been completed, you should be able to—

1. *explain what extensions are and how extensions are used to calculate totals for sales checks, price change forms, purchase orders, and invoices; and*
2. *do extensions on a variety of forms used in marketing.*

When merchandise is purchased by a retailer, the manufacturer sends an invoice showing the quantity, description, and the individual price of each item shipped. Also, the invoice contains the amount owed for the total number of each item purchased, as well as the total amount owed for all merchandise ordered and shipped on the invoice.

Calculating the amount owed for the total number of each item purchased is called **extending an invoice**. The calculation is done by multiplying the quantity of each item listed on the invoice by its unit price. After each item on the invoice is extended, the extension column is totaled. This is the invoice total unless sales tax or a trade discount is to be added or subtracted, respectively. Figure 1 shows an invoice that has had these extensions completed.

Other important forms used in marketing and retailing require that extensions be made. Extending items on a purchase order, sales check, or price change form is basically the same as extending an invoice. You may encounter forms with other names that require extensions. Examples are markdown forms and markup forms.

In all cases it is important for extensions to be done correctly, because it affects business records and business decisions. Failure to extend can make totals seriously wrong. You need to practice extensions until they become automatic.

Many items that are purchased by retailers are priced in quantities rather than as individual items. For example, vendors of school supplies usually price ballpoint pens by the dozen or by the gross. If the item is purchased in the exact quantity, the extension is as simple as if it were a single item. However, if the item is purchased in a smaller or larger amount, an additional calculation must be made. For example, if 100 pink erasers were ordered and the supplier priced them at \$6.00 per dozen, the following calculation must be made:

$$\frac{100 \text{ erasers} \times \$6.00 \text{ a dozen}}{12} = \frac{\$600}{12} = \$50.00$$

This additional calculation must be done even though a column is not provided to show that this calculation is necessary for accuracy.

Examples:

In home improvement retailing centers, certain merchandise may be priced by units, such as by the dozen. With the invoice below, a store received 6 block planes with stock locator number #333 at a price of \$14.20 each, 48 packages of coarse sandpaper #1295 at a price of \$12.22 a dozen packages, and 6 birdhouse kits #848 at \$12.75 a kit. The invoice has been extended and completed using those numbers.

Stock locator no.	Quantity	Description	Price	Amount
# 333	6	Block Planes	14.20	85.20
# 1295	48	Coarse Sandpaper Packages	12.22dz	48.88
# 848	6	Birdhouse kits	12.75	76.50
		TOTAL		210.58

Received by________________________

Fig. 1. An extended invoice

Checking for Understanding: Extensions

Unless otherwise directed by the teacher, copy the form on a separate sheet of paper for this problem.

Complete the form below using the same approach used for the invoice in the example. With this purchase order the store purchased 3 12" band saws at $87.55 each, 3 saber saws at $41.50 each, and 84 scroll saw blades at $5.40 a dozen.

Stock locator no.	Quantity	Description	Price	Amount

Received by________________________

ASSIGNMENT 7

Making Change

Objectives: When this assignment has been completed, you should be able to—

1. *explain the method used for making change after electronic or mechanical change calculations;*
2. *explain the method used for making change after manual change calculations; and*
3. *properly make change using the least possible number of coins and currency.*

As with most elements of marketing mathematics, there are two major reasons why you need to know how to make change. The first reason is *personal.* As a customer, you want to be sure that when you receive change, you have been given the correct amount. The second reason is good *business.* Just like you, customers don't like to be given incorrect change. They may think that you are incompetent or dishonest, and they may take their business elsewhere.

These two definitions will help clarify the rest of this assignment.

manual change calculation—determining amounts without using a calculating device

electronic or mechanical change calculation—automatically determining amounts using a cash register or electronic calculator.

Making Change after Electronic or Mechanical Calculations

Most businesses that can afford them use cash registers that calculate totals for you and tell the amount of change to be returned to a customer. Making change after such automatic calculation is easy.

- Step 1. Read the amount of change to be returned. This will have been automatically displayed by the cash register. The amount tendered will also be left in plain sight.
- Step 2. Count the change to yourself.
- Step 3. Count out the change to the customer, as it relates to the stated change due.
- Step 4. Look the customer in the eye and say, "Thank you."

Always use the least possible number of coins and currency when making change. Do this by using the largest bills and coins available. For example, don't return two $5.00 bills if you have a $10.00 bill available. Don't use two quarters when you have a half dollar available.

Example: This is what you do and what you say to the customer when the total purchase plus tax is $7.69, and the customer gives you a $20.00 bill. The cash register tells you to give the customer back $12.31.

- Step 1. Say, "That is $7.69 out of $20.00. Your change is $12.31."
- Step 2. To yourself count out (1) quarter, (1) nickel, and (1) penny, then think "31 cents." Next count out (2) $1 bills and (1) $10.00 bill, and think "12." Then think "$12.31."
- Step 3. To the customer count out (1) quarter, (1) nickel, and (1) penny, and say, "31 cents." Count out (2) $1.00 bills and (1) $10.00 bill, and say, "12." Then say to the customer, "$12.31."
- Step 4. Say, "Thank you." Be sure to make eye contact.

Checking for Understanding: Making Change after Electronic or Mechanical Calculations

Unless otherwise directed by your teacher, do this problem on a separate sheet of paper. For this example, assume your cash register has no half dollars—which often happens.

In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.24. The register shows change due is $10.76. Also write what you would say to the customer.

Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

Making Change after Manual Calculations

Many businesses don't use cash registers that calculate and tell the amount of change to be given to a customer. When this is the situation, change is calculated manually—by hand. Making change after manual calculation is as easy as making change after mechanical calculation.

- Step 1. Leave the amount of money the customer gives you out where you can see it. The best place is the register plate or ledge just above the cash drawer.
- Step 2. Count out the change to yourself as you take it from the cash drawer. As was the case before, you want to use the fewest items of change and currency. Start with pennies if any are needed to reach the next denomination in coins or currency. Remember to use the least possible number of coins when deciding whether to take out nickels or dimes or quarters. Also, remember to use the largest denominations of currency you can when taking out $1, $5, or $10 bills.
- Step 3. Tell the customer the amount of the sale and the amount of money that you have been given. This will avoid misunderstandings later in the transaction.
- Step 4. Count out the change to the customer exactly the same way you took it from the cash drawer, counting from the amount of the purchase all the way to the amount the customer gave you. At each point, tell the customer what the cumulative total is. This differs from change making after electronic or mechanical calculation.
- Step 5. Look the customer in the eye and say, "Thank you."

Example: This is what you would do and say if you had to calculate manually and the customer gave you a $20 bill. The bill is $7.69, and you will be counting upward from it. You say, "You gave me a $20 bill. The purchase was $7.69, $7.70, $7.75, $8.00, $9.00, $10.00, and $10.00 makes $20.00. Thank you."

Checking for Understanding: Making Change after Manual Calculations

Unless otherwise directed by your teacher, do this problem on a separate sheet of paper.

Use columns such as those below to show the combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.84. Also write what you would say to the customer.

Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

ASSIGNMENT 8

Cash Register Operation

Objectives: When this assignment has been completed, you should be able to—

1. *open for sales using a cash bank, and*
2. *close out a cash drawer.*

Electronic and computerized cash registers are becoming more widely used. They are very popular with the businesses that sell both taxable and nontaxable products. Highly developed cash registers *scan* and *read* coded price tags with a device called a **scanning wand.** Such registers can tell if a product is taxable from the code on the price tag. If the product is taxable, the machine records the sales tax automatically. An NCR hand-held scanning wand (see fig. 1) reads a price tag and records the sales tax on an item priced $25.79.

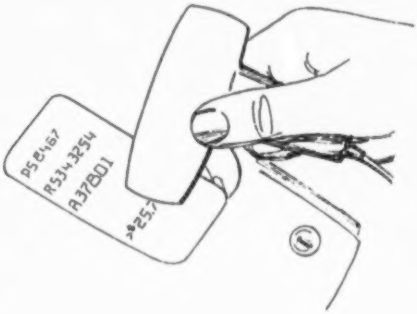


Fig. 1. A scanning wand

Many grocery stores record all sales transactions, including sales tax, by moving products over a scanner built into a counter (see fig. 2).

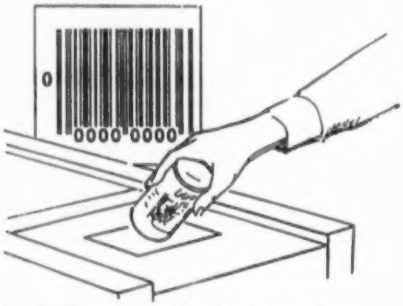


Fig. 2. A scanner built into a counter

Using a bar code, which the scanner reads, prices are stamped either on the product or on its price tag. As items are passed over a **scanner window** built into the counter, the scanner reads the information. Then it feeds the information to the register and to a computer where it is recorded.

Checking for Understanding: Electronic and Computerized Cash Registers

Unless your teacher directs you otherwise, write these sentences elsewhere by filling in the blanks to make them complete and correct.

1. Some highly developed electronic cash registers __________ and __________ price tags.
2. The __________ on the price tag tells the register if a product is __________.
3. Such a machine automatically ______________________ sales tax.
4. Registers that scan and read price tags are very popular with businesses that sell both __________ and __________ products.
5. Scanners scan and read information through devices such as a ____________________ ______________ or a __________________ built into a __________________.

Working with Cash Banks

Many businesses require salespersons to handle cash as part of the selling process. If you find yourself in this situation, you will most likely be given a supply of money, which is called a **cash bank**, when you start your selling day. Other names for a cash bank are **change fund** or **opening fund**. Starting your selling day is usually called "opening."

To open for sales, you should:

- Step 1: Count your cash bank to be sure that it contains the proper amount. If all the money is there, the bank *balances*. If there is less money than there should be, you have a *shortage*. If there is more money, you have an *overage*.
- Step 2: Fill out the appropriate part of a *proof of cash slip*. Place the slip along with a register reading in your cash drawer.
- Step 3: Begin your selling day.

Example of checking a cash bank: Suppose that the proper cash bank amount is $200.00. Your cash bank might look like this if it balances:

Pennies	*100*	= 100 × .01	=	*$ 1.00* in pennies
Nickels	*42*	= 42 × .05	=	*2.10* in nickels
Dimes	*49*	= 49 × .10	=	*4.90* in dimes
Quarters	*26*	= 26 × .25	=	*6.50* in quarters
Halves	*9*	= 9 × .50	=	*4.50* in halves
$1s	*16*	= 16 × 1.00	=	*16.00* in ones
$5s	*9*	= 9 × 5.00	=	*45.00* in fives
$10s	*6*	= 6 × 10.00	=	*60.00* in tens
$20s	*3*	= 3 × 20.00	=	*60.00* in twenties
		Total	=	*$200.00*

Cash bank total: $200.00 = Your count: $200.00

Checking for Understanding: Counting a Cash Bank

Unless directed otherwise by your teacher, do not write the counts and totals for this problem in this book.

Count your cash bank if the cash bank total is supposed to be $250.00. In the cash bank, there are the following amounts. After finding the total, indicate if the bank is over, short, or balanced.

Pennies	*175*	= 175 × .01 =	______	in pennies
Nickels	*100*	= 100 × .05 =	______	in nickels
Dimes	*10*	= 10 × .10 =	______	in dimes
Quarters	*35*	= 35 × .25 =	______	in quarters
Halves	*4*	= 4 × .50 =	______	in halves
$1s	*52*	= 52 × 1.00 =	______	in ones
$5s	*14*	= 14 × 5.00 =	______	in fives
$10s	*5*	= 5 × 10.00 =	______	in tens
$20s	*3*	= 3 × 20.00 =	______	in twenties
		Total =	______	

Check one and tell the amount.

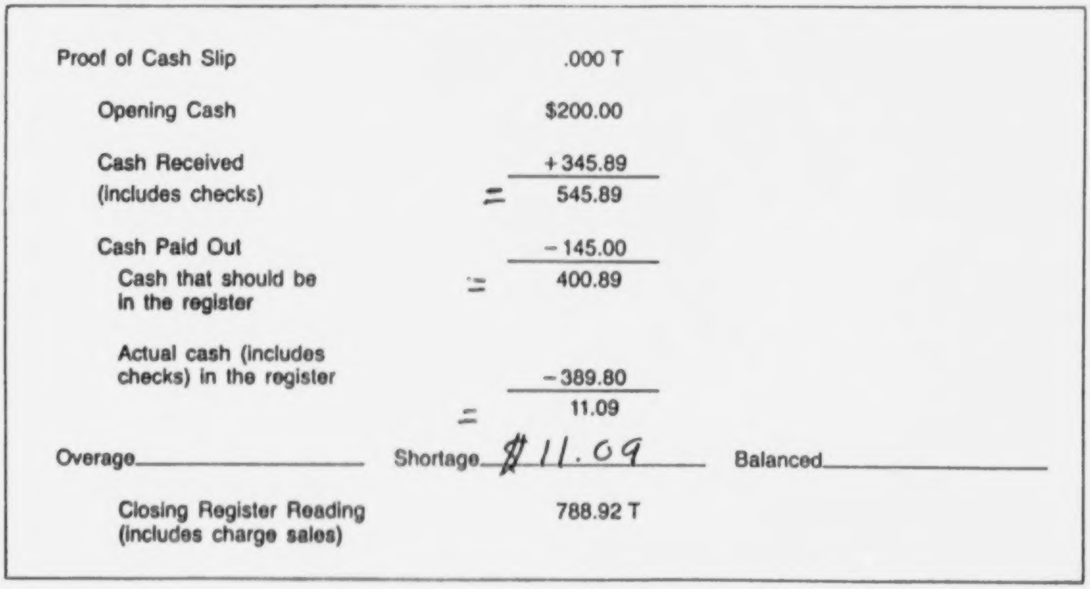
Are you over ______ by ______?

short ______ by ______?

balanced ______ by ______?

Closing Out a Cash Drawer

At the close of the sales day, you close out your cash drawer and complete the *proof of cash slip*. Such a slip is shown in figure 3.



Proof of Cash Slip .000 T

Opening Cash $200.00

Cash Received +345.89

(includes checks) = 545.89

Cash Paid Out − 145.00

Cash that should be in the register = 400.89

Actual cash (includes checks) in the register −389.80

= 11.09

Overage______ Shortage $11.09 Balanced______

Closing Register Reading (includes charge sales) 788.92 T

Fig. 3. A completed proof of cash slip

The steps in closing out a cash drawer are:

- Step 1: Take register readings of the cash received and the cash paid out during the sales day.
- Step 2: Enter the readings on the proof of cash slip.
- Step 3: Count the money in the cash drawer. The cash drawer should contain your opening cash and the money received, less the money paid out for change or refunds.
- Step 4: Decide whether your drawer balances. The total cash that should be in the register must equal the actual cash in the register. If the actual cash in the drawer is less than the amount that should be in the drawer, the drawer does not balance out. You have a shortage. If the actual cash in the drawer is more than the amount that should be in the drawer, the drawer does not balance out. You have an overage. You should notify your supervisor before checking out.
- Step 5: Take a final register reading.

Checking for Understanding: Closing Out a Cash Drawer

Unless directed otherwise, write these sentences elsewhere, completing them by filling in the blanks.

To close out your cash drawer:

1. Take register readings of the __________ ______________

   and the __________ ______________ ______________.

2. __________ the readings on the ______________

   __________ ______________ ______________.

3. Count the money in the __________ ______________ .

   This should include your __________ ______________

   and __________ ______________ less the

   __________ ______________ ______________.

4. Decide if you __________, or if you have a ______________

   or an __________.

5. Take a final __________ ______________ .

ASSIGNMENT 9

Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

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Objectives: When this assignment has been completed, you should be able to—

1. *identify information shown on sales slips;*
2. *manually prepare sales slips for cash and charge sales;*
3. *explain how to deal with sales returns and exchanges;*
4. *define sales tax and explain its purpose;*
5. *use a* sales tax *table and other methods for computing sales tax;*
6. *explain how sales tax is recorded; and*
7. *fill out installment contracts.*

Sales records are important to business operations. They provide useful information about such things as:

- who made the sale
- when the sale was made
- what items were sold
- location of the sale
- type of sale made
- amount of the sales tax rate
- amount of tax charges
- total amount (price + tax)
- customer information (charge sales)

As a cashier, you need to know how to look for sales slip mistakes. You also are concerned with how sales are credited to departments. Sales transaction mistakes can cost you or the store money. As a salesperson, if you make a sale, you are responsible for the record of that sale.

Sales records can be produced automatically by a cash register, written manually by a salesperson, or both. Manual records of sales transactions are done if a business uses a cash drawer instead of a cash register or if a business wants to double-check an automatic process. Automatic cash registers and computerized cash registers both record and store sales information. Computerized cash registers provide the business with the ability to generate reports based on sales information almost immediately. Automatic cash registers do not have this same ability but are much less expensive.

The two basic types of sales are **cash sales** and **charge sales**. They differ some in the details of how they are handled, as will be explained.

Understanding the following terms will make it easier to understand the rest of this information.

cash sale—a sale in which cash is paid for all items at the time of purchase

charge (or credit) sale—a sale in which items are purchased either by signing a contract or by using a credit card. All or part of the money owed is to be paid at a later date.

sales tax—an extra charge that is added to taxable items at the time they are sold
@—a symbol meaning "at." Also means "priced at."

Sales Slips and Cash Register Slips (Receipts)

A cash register produces a sales slip that shows information entered into the cash register. When a cash sale is made, either a manual sales slip or the cash register slip is used. Figure 1 shows information to be expected on a cash register slip. Actual slips may differ in details. Figure 2 shows the same information entered by hand on a sales slip. The exact information provided and its location can vary from store to store.

When you know what information is required and where it goes, you are ready to complete a sales slip, either by writing the information or by entering it in a cash register.

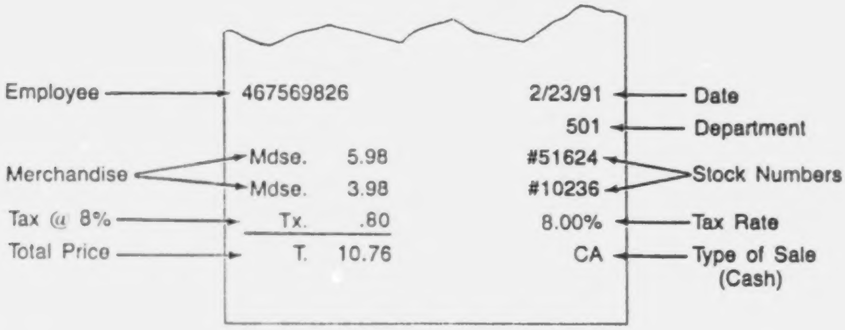
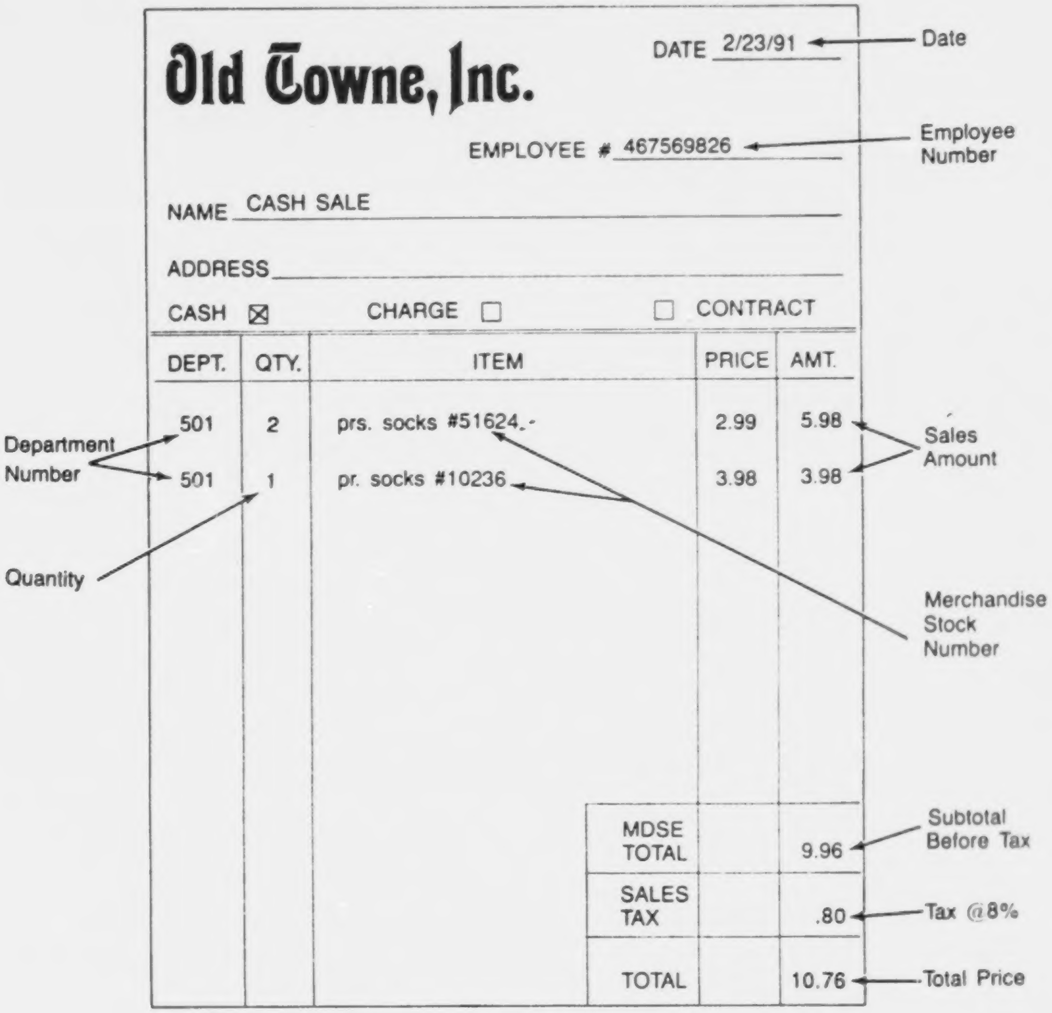

Employee
467569826
2/23/91
Date
501
Department
Merchandise
Mdse. 5.98
Mdse. 3.98
#51624
#10236
Stock Numbers
Tax @ 8%
Tx. .80
8.00%
Tax Rate
Total Price
T. 10.76
CA
Type of Sale (Cash)

Fig. 1. Cash register slip



Old Towne, Inc.

DATE 2/23/91

EMPLOYEE # 467569826

NAME CASH SALE

ADDRESS

CASH ☒ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
501	2	prs. socks #51624	2.99	5.98
501	1	pr. socks #10236	3.98	3.98
		MDSE TOTAL		9.96
		SALES TAX		.80
		TOTAL		10.76

Date
Employee Number
Department Number
Sales Amount
Quantity
Merchandise Stock Number
Subtotal Before Tax
Tax @8%
Total Price

Fig. 2. Manually written sales slip

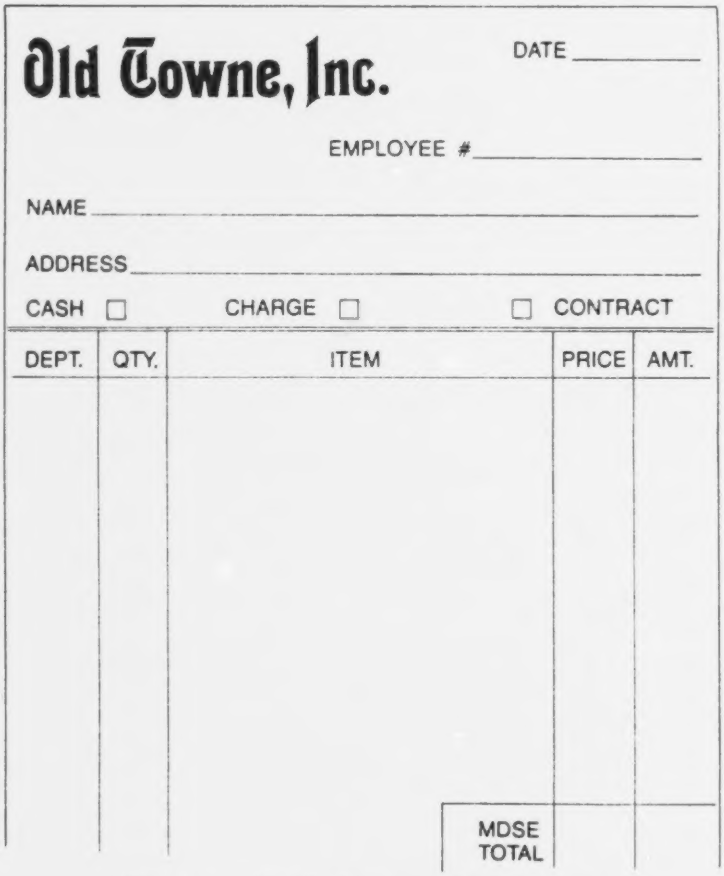
Checking for Understanding: Manually Completing a Sales Slip

Unless otherwise directed, do not write in this book. The form may be copied, or you may draw one like it. Complete the blank sales slip in figure 3. You can consult figure 2 to determine where each type of information goes. Do not figure tax or total price. This is the information to enter:

Employee #: (Your Social Security number)
Terms of the Transaction: Cash
Date: Today

Merchandise

Dept	*Qty*	*Item*	*Stock Number*	*Price*
12	3	ties	#33565	$27.50
51	12	handkerchiefs	#17895	5.00
51	6	pair of socks	#29123	6.50
52	1	belt	#21243	18.00
			Merchandise Total	



Old Towne, Inc.

DATE ________

EMPLOYEE # ________

NAME ________

ADDRESS ________

CASH ☐ CHARGE ☐ ☐ CONTRACT

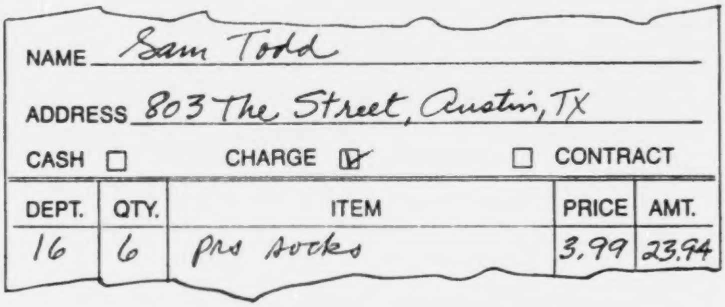
DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		

Fig. 3. A sales slip for manual completion

Sales Slip Variations for Credit Sales

If a customer makes a contract purchase, or uses a credit card, he or she charges the merchandise. This means that he or she will pay either part or all of the money owed at some later date. A charge transaction may require different treatment. In some cases, the salesperson may take part in preparing a retail installment contract, as is described later.

Businesses that use their own credit card often use their own sales slips for credit sales. The sales slip is similar to the manually written cash sales slip, and the nature of the sale may be simply registered with a checkmark (see fig. 4).



NAME Sam Todd

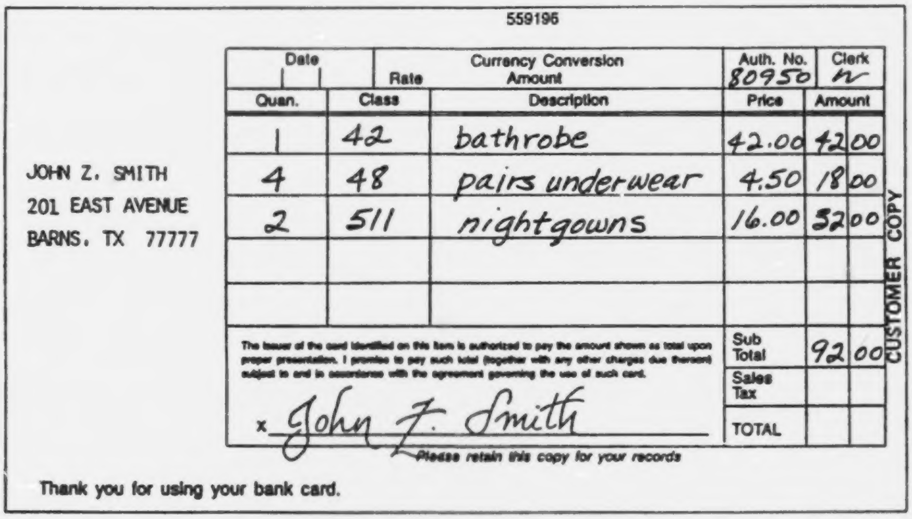
ADDRESS 803 The Street, Austin, TX

CASH ☐ CHARGE ☑ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
16	6	prs socks	3.99	23.94

Fig. 4. A sales slip used with the retailer's credit card

Many businesses accept **bank credit cards** such as VISA or MasterCard. Standard charge sales slips are used for most bank cards. Figure 5 has been labeled to show where information typically is entered. It is also becoming common today for cash registers to print out the terms of the credit charge, complete with a space for the customer to sign.



559196

JOHN Z. SMITH
201 EAST AVENUE
BARNS, TX 77777

Date	Rate	Currency Conversion Amount	Auth. No.	Clerk
			80950	h

Quan.	Class	Description	Price	Amount	
1	42	bathrobe	42.00	42	00
4	48	pairs underwear	4.50	18	00
2	511	nightgowns	16.00	32	00
			Sub Total	92	00
			Sales Tax		
			TOTAL		

The issuer of the card identified on this item is authorized to pay the amount shown as total upon proper presentation. I promise to pay such total (together with any other charges due thereon) subject to and in accordance with the agreement governing the use of such card.

x John Z. Smith

Please retain this copy for your records

CUSTOMER COPY

Thank you for using your bank card.

Fig. 5. A bank credit card sales slip

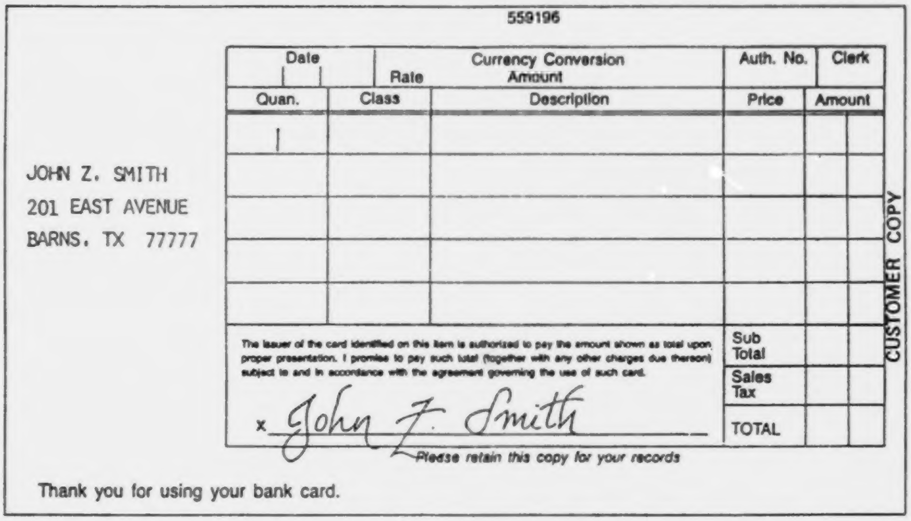
Checking for Understanding: Bank Credit Cards

Unless otherwise directed, do not write in this book. The blank form shown may be copied for your use.

Fill in a standard credit sales slip for a bank credit card, shown below. Do not figure sales tax. Use the following information.

Date: Today
Authorization code: 80950
Clerk's initials: Your initials

Quantity	*Class*	*Description*	*Price*
1	42	bathrobe	$42.00
4	48	pairs of underwear	$4.50 pr.
2	511	nightgowns	$16.00



559196

Date	Rate	Currency Conversion Amount	Auth. No.	Clerk

Quan.	Class	Description	Price	Amount
			Sub Total	
			Sales Tax	
			TOTAL	

JOHN Z. SMITH
201 EAST AVENUE
BARNS, TX 77777

The issuer of the card identified on this item is authorized to pay the amount shown as total upon proper presentation. I promise to pay such total (together with any other charges due thereon) subject to and in accordance with the agreement governing the use of such card.

x John Z. Smith

Please retain this copy for your records

CUSTOMER COPY

Thank you for using your bank card.

Working with Sales Tax

By law, a **sales tax** is an extra charge that is added to taxable products at the time they are sold. It can be a general sales tax, on almost everything, or a specific tax such as on cigarettes. Most states and many cities collect sales tax. Money collected as sales tax is used for public purposes.

If you are working with sales tax, you should know that some products are taxable and some are nontaxable. For example, most articles of clothing are taxable, while prescription drugs are nontaxable. Federal tax is not added at the time of sale because it is already included in the sale price.

The sales tax is based on the **merchandise total**, or what the taxable merchandise costs. On some forms, the **merchandise total** is called a **subtotal.** The sales tax is calculated as a percent of that total. For example, an 8% sales tax on a $1.00 dollar taxable sale would add 8 cents to the total paid by the customer.

The sales tax equation is

Merchandise total × sales tax rate = sales tax in $

(If that looks familiar, it's probably because it is basically the same equation as for percentage, base, and rate, covered in Assignment 5.)

Determining the sales tax in dollars is not difficult. First, you find the total merchandise cost for the merchandise. Then you multiply that by the sales tax rate in your locality. The resulting sales tax is added to the merchandise total to get the total on the sales slip.

Example: The merchandise total for which sales tax is due is $20.00. The sales tax rate is 8%, or 0.08. $20 × 0.08 = $1.60.

Even that may not be necessary if you are working with a cash register or computer that automatically calculates the sales tax due and adds it to the merchandise total. Many registers can even be reprogrammed when there is a change in rate so employees don't have to stop to think of the rate.

Another method is to use a sales tax table, such as those shown in figure 6. To use such a table, the cashier reads down the column that relates to the amount of the sale, then across to the required tax. Usually the amount falls in a range, such as sales totalling from $1.19-1.31. The tax stated for this range in the 8% table is $0.10. Tables are available for different sales tax rates, because different communities have different rates.

Checking for Understanding: Finding the Amount of Sales Tax

1. Using the equation, find the sales tax due on a merchandise total of $24.00 when the sales tax in the community is 0.08, or 8%. Answer____________
2. Using the sales tax schedule for 8%, find the tax on a $0.60 item. Answer __________

Handling Returns

Merchandise is sometimes returned for a cash refund, a charge credit, or an exchange. These three are treated somewhat differently.

Example A: Cash Refund

A customer bought a pair of slacks for $25.99. With sales tax added, the total came to $28.07. On a cash refund, the customer would receive $28.07. A sales slip would record the transaction.

Example B: Charge Credit

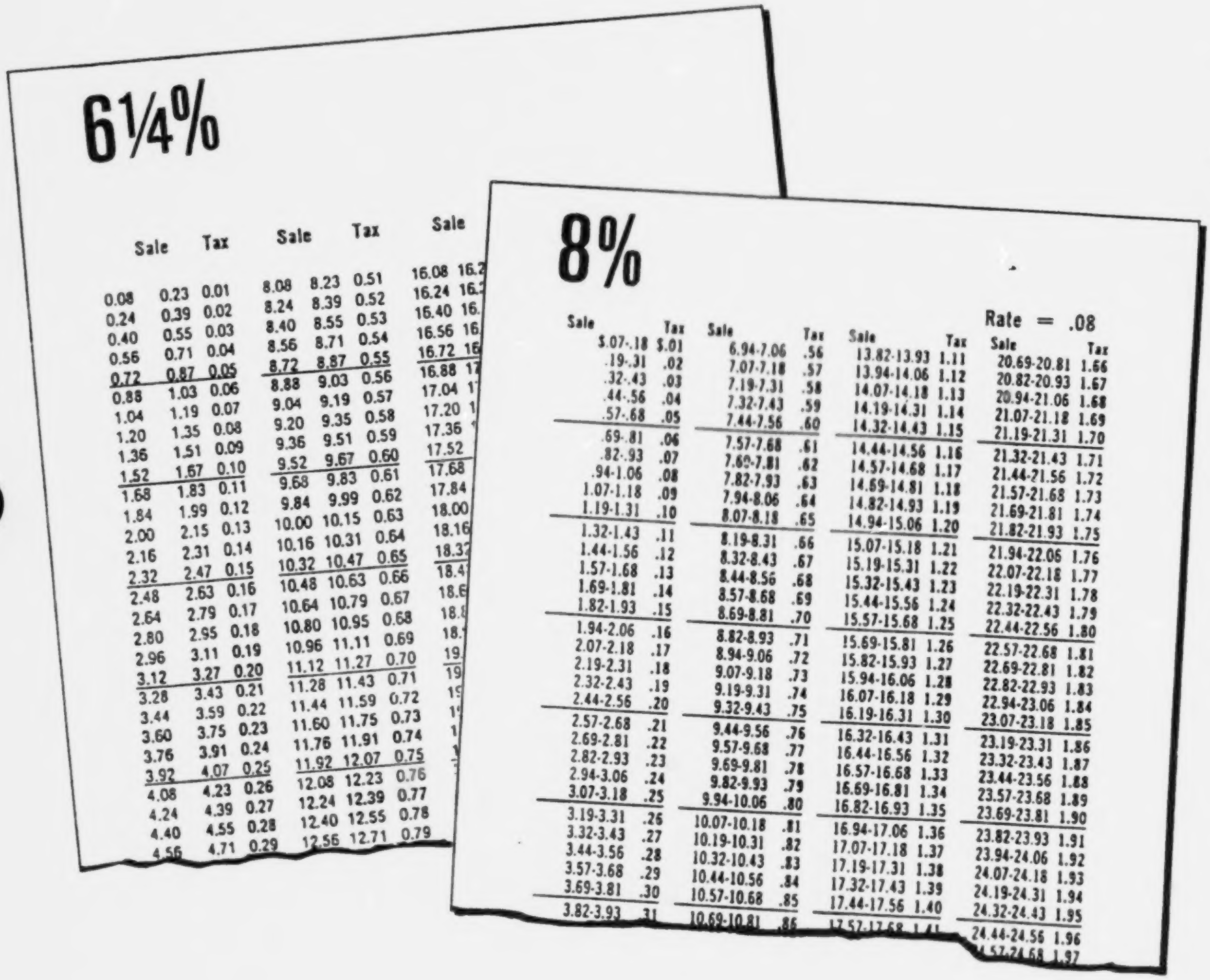
A customer charged a pair of slacks for $25.99. With sales tax added, the total came to $28.07. On a charge credit, the customer's charge account would receive a credit of $28.07. A sales slip would record the transaction.

Example C: Exchange

A customer purchased a pair of slacks for $25.99 which with sales tax added came to $28.07. (Again!) This time the salesperson or cashier may have to do some more calculating.

1. On an **even** exchange for other merchandise, no money would change hands. But a sales slip would record the transaction.

2. On an **uneven** exchange, the item being exchanged could cost either more or less than the exchange item. The differences in price and in sales tax must be considered. A sales slip would record the transaction.



6¼%

Sale		Tax	Sale		Tax	Sale
0.08	0.23	0.01	8.08	8.23	0.51	16.08
0.24	0.39	0.02	8.24	8.39	0.52	16.24
0.40	0.55	0.03	8.40	8.55	0.53	16.40
0.56	0.71	0.04	8.56	8.71	0.54	16.56
0.72	0.87	0.05	8.72	8.87	0.55	16.72
0.88	1.03	0.06	8.88	9.03	0.56	16.88
1.04	1.19	0.07	9.04	9.19	0.57	17.04
1.20	1.35	0.08	9.20	9.35	0.58	17.20
1.36	1.51	0.09	9.36	9.51	0.59	17.36
1.52	1.67	0.10	9.52	9.67	0.60	17.52
1.68	1.83	0.11	9.68	9.83	0.61	17.68
1.84	1.99	0.12	9.84	9.99	0.62	17.84
2.00	2.15	0.13	10.00	10.15	0.63	18.00
2.16	2.31	0.14	10.16	10.31	0.64	18.16
2.32	2.47	0.15	10.32	10.47	0.65	18.3
2.48	2.63	0.16	10.48	10.63	0.66	18.4
2.64	2.79	0.17	10.64	10.79	0.67	18.6
2.80	2.95	0.18	10.80	10.95	0.68	18.8
2.96	3.11	0.19	10.96	11.11	0.69	18.
3.12	3.27	0.20	11.12	11.27	0.70	19.
3.28	3.43	0.21	11.28	11.43	0.71	19
3.44	3.59	0.22	11.44	11.59	0.72	1
3.60	3.75	0.23	11.60	11.75	0.73	1
3.76	3.91	0.24	11.76	11.91	0.74	1
3.92	4.07	0.25	11.92	12.07	0.75	
4.08	4.23	0.26	12.08	12.23	0.76	
4.24	4.39	0.27	12.24	12.39	0.77	
4.40	4.55	0.28	12.40	12.55	0.78	
4.56	4.71	0.29	12.56	12.71	0.79	

8%

Rate = .08

Sale	Tax	Sale	Tax	Sale	Tax	Sale	Tax
$.07-.18	$.01	6.94-7.06	.56	13.82-13.93	1.11	20.69-20.81	1.66
.19-.31	.02	7.07-7.18	.57	13.94-14.06	1.12	20.82-20.93	1.67
.32-.43	.03	7.19-7.31	.58	14.07-14.18	1.13	20.94-21.06	1.68
.44-.56	.04	7.32-7.43	.59	14.19-14.31	1.14	21.07-21.18	1.69
.57-.68	.05	7.44-7.56	.60	14.32-14.43	1.15	21.19-21.31	1.70
.69-.81	.06	7.57-7.68	.61	14.44-14.56	1.16	21.32-21.43	1.71
.82-.93	.07	7.69-7.81	.62	14.57-14.68	1.17	21.44-21.56	1.72
.94-1.06	.08	7.82-7.93	.63	14.69-14.81	1.18	21.57-21.68	1.73
1.07-1.18	.09	7.94-8.06	.64	14.82-14.93	1.19	21.69-21.81	1.74
1.19-1.31	.10	8.07-8.18	.65	14.94-15.06	1.20	21.82-21.93	1.75
1.32-1.43	.11	8.19-8.31	.66	15.07-15.18	1.21	21.94-22.06	1.76
1.44-1.56	.12	8.32-8.43	.67	15.19-15.31	1.22	22.07-22.18	1.77
1.57-1.68	.13	8.44-8.56	.68	15.32-15.43	1.23	22.19-22.31	1.78
1.69-1.81	.14	8.57-8.68	.69	15.44-15.56	1.24	22.32-22.43	1.79
1.82-1.93	.15	8.69-8.81	.70	15.57-15.68	1.25	22.44-22.56	1.80
1.94-2.06	.16	8.82-8.93	.71	15.69-15.81	1.26	22.57-22.68	1.81
2.07-2.18	.17	8.94-9.06	.72	15.82-15.93	1.27	22.69-22.81	1.82
2.19-2.31	.18	9.07-9.18	.73	15.94-16.06	1.28	22.82-22.93	1.83
2.32-2.43	.19	9.19-9.31	.74	16.07-16.18	1.29	22.94-23.06	1.84
2.44-2.56	.20	9.32-9.43	.75	16.19-16.31	1.30	23.07-23.18	1.85
2.57-2.68	.21	9.44-9.56	.76	16.32-16.43	1.31	23.19-23.31	1.86
2.69-2.81	.22	9.57-9.68	.77	16.44-16.56	1.32	23.32-23.43	1.87
2.82-2.93	.23	9.69-9.81	.78	16.57-16.68	1.33	23.44-23.56	1.88
2.94-3.06	.24	9.82-9.93	.79	16.69-16.81	1.34	23.57-23.68	1.89
3.07-3.18	.25	9.94-10.06	.80	16.82-16.93	1.35	23.69-23.81	1.90
3.19-3.31	.26	10.07-10.18	.81	16.94-17.06	1.36	23.82-23.93	1.91
3.32-3.43	.27	10.19-10.31	.82	17.07-17.18	1.37	23.94-24.06	1.92
3.44-3.56	.28	10.32-10.43	.83	17.19-17.31	1.38	24.07-24.18	1.93
3.57-3.68	.29	10.44-10.56	.84	17.32-17.43	1.39	24.19-24.31	1.94
3.69-3.81	.30	10.57-10.68	.85	17.44-17.56	1.40	24.32-24.43	1.95
3.82-3.93	.31	10.69-10.81	.86	17.57-17.68	1.41	24.44-24.56	1.96
						4.57-24.68	1.97

Fig. 6. Sales tax tables (or schedules) make it easy to determine the tax due for purchases in specific localities. Stores use tables with the correct tax rate for their community, including state and other taxes. Such tables are used by finding the range in which a sale falls, then reading the sales tax directly. In the 8% table, the tax on $1.35 would be in the $1.32 to $1.43 range, and would be $0.11.

What to do if the exchange item costs less. The slacks refunded cost $25.99 + sales tax for a total of $28.07. The exchange slacks cost $21.99 + sales tax for a total of $23.75. There is a difference in price of $4.00 ($25.99 – $21.99 = $4.00). There is a difference in sales tax of $0.32 ($2.08 – $1.76 = $0.32). The amount of the refund would be $4.32. If the customer paid cash, a cash refund receipt (or cash) would be given. The refund receipt could be used to purchase another item at a later date or redeemed for cash depending on the store's return policy. On the other hand, if the customer charged the first purchase, a charge credit for the first item could be issued and the new item charged to his account.

What to do if the exchange item costs more. The slacks returned cost $25.99 + sales tax for a total of $28.97. The exchange slacks cost $32.69 + sales tax for a total of $35.31. There is a difference in price of $6.70 ($32.69 – $25.99 = $6.70). There is a difference in sales tax of $0.54 ($2.62 – $2.08 = $0.54). The customer owes an additional $7.24 ($6.70 + $0.54 = $7.24) on the exchange. If the customer paid cash, the customer could pay the difference after a sales check showing the item returned as well as the new item purchased was made. On the other hand, if the customer charged the first purchase, a charge credit for the first item could be issued and the new item charged to his account.

Checking for Understanding: Handling Refunds and Exchanges

Calculate the following types of merchandise returns, and tell what action to take. The sales tax is 8%, or 0.08.

1. A cash refund for a shirt that cost $15.99 + tax for a total of $17.27.
   Answer ________________

2. A charge credit for a shirt that cost $15.99 + tax for a total of $17.27.
   Answer ________________

3. An even exchange if the shirt cost $15.99 + tax for a total of $17.27.
   Answer ________________

4. An uneven exchange for an item that costs less. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $10.95 + tax for a total of $11.83.
   Answer, price difference __________ Answer, sales tax difference ________________
   Total amount refunded if cash paid ______________

5. An uneven exchange for an item that costs more. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $37.00 + tax for a total of $39.96.
   Answer, price difference ________________ Answer, sales tax difference __________
   Answer, additional amount due if cash ______________

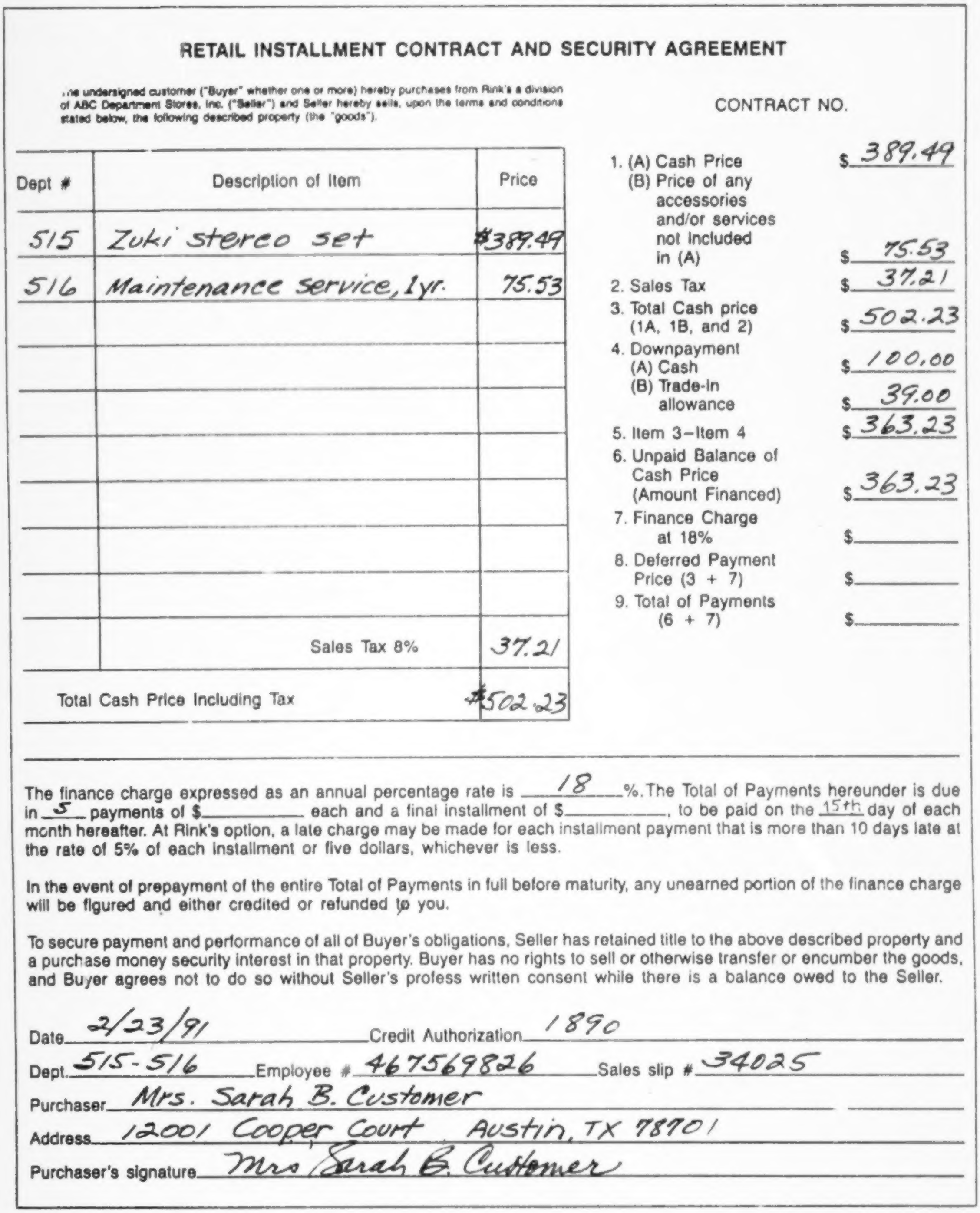
Installment Sales Contracts

A *contract* is written for purchases of expensive items such as TVs, or for large home appliances like refrigerators or washer/dryer combinations. On a contract sale, customers often have the option of making a down payment. Sometimes they receive a trade-in allowance. A finance charge is added to the unpaid balance. The total of payments owed is usually paid over a period of six months to two years.

Employees often are required to write up installment sales contracts, such as the one shown in figure 7. Even though these may vary in details, studying this one will help clarify what is done. Such agreements are designed to be completed efficiently, following steps such as those shown at the right of this "Retail Installment Contract and Security Agreement." They're not confusing if you read them carefully.

With this form, the employee starts in the area at the left by recording the departments, descriptions, and prices of the merchandise and services being sold. After that, the employee completes the items in the column at the right.

1. and 2. The prices and the sales tax from the left are entered as items 1A, IB, and 2 in the column on the right.
3. Items 1A, IB, and 2 are added to get item 3, the total cash price.
4. The down payment and trade-in allowance are entered as items 4A and 4B.
5. The total for items 4A and 4B is subtracted from item 3, total cash price.
6. The result in item 5 becomes item 6, the unpaid balance or cash price. This is also the amount to be financed.
7. Item 7 is the finance charge on the unpaid balance, calculated in this case for an 18% annual rate.
8. Item 3 (total cash price) is added to item 7 (finance charge) to get the deferred payment price, or total paid by the customer.
9. The unpaid balance (item 6) is added to the finance charge (item 7) to show how much the customer will be paying in the payments to be made.



RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

The undersigned customer ("Buyer" whether one or more) hereby purchases from Rink's a division of ABC Department Stores, Inc. ("Seller") and Seller hereby sells, upon the terms and conditions stated below, the following described property (the "goods").

CONTRACT NO.

Dept #	Description of Item	Price
515	Zuki stereo set	$389.49
516	Maintenance service, 1yr.	75.53
	Sales Tax 8%	37.21
Total Cash Price Including Tax		$502.23

1. (A) Cash Price	$ 389.49
(B) Price of any accessories and/or services not included in (A)	$ 75.53
2. Sales Tax	$ 37.21
3. Total Cash price (1A, 1B, and 2)	$ 502.23
4. Downpayment (A) Cash	$ 100.00
(B) Trade-in allowance	$ 39.00
5. Item 3–Item 4	$ 363.23
6. Unpaid Balance of Cash Price (Amount Financed)	$ 363.23
7. Finance Charge at 18%	$
8. Deferred Payment Price (3 + 7)	$
9. Total of Payments (6 + 7)	$

The finance charge expressed as an annual percentage rate is 18 %. The Total of Payments hereunder is due in 5 payments of $______ each and a final installment of $______, to be paid on the 15th day of each month hereafter. At Rink's option, a late charge may be made for each installment payment that is more than 10 days late at the rate of 5% of each installment or five dollars, whichever is less.

In the event of prepayment of the entire Total of Payments in full before maturity, any unearned portion of the finance charge will be figured and either credited or refunded to you.

To secure payment and performance of all of Buyer's obligations, Seller has retained title to the above described property and a purchase money security interest in that property. Buyer has no rights to sell or otherwise transfer or encumber the goods, and Buyer agrees not to do so without Seller's profess written consent while there is a balance owed to the Seller.

Date 2/23/91 Credit Authorization 1890
Dept. 515-516 Employee # 467569826 Sales slip # 34025
Purchaser Mrs. Sarah B. Customer
Address 12001 Cooper Court Austin, TX 78701
Purchaser's signature Mrs Sarah B. Customer

Fig. 7. An installment contract

Checking for Understanding: Installment Sales Contracts

Unless otherwise directed by your teacher, do not write directly in this book. Instead, just number blanks for the items, then write the correct $ figures in the blank for each item.

Do the calculations necessary to prepare an installment sales contract under the following conditions. The down payment will be $150.00. The trade-in allowance is $60.00.

1. (A) cash price	$1305.48
(B) maintenance contract	195.00
2. Sales tax, at 8%	120.04

CONTRACT NO.

1. (A) Cash Price $________
(B) Price of any accessories and/or services not included in (A) $________
2. Sales Tax $________
3. Total Cash price (1A, 1B, and 2) $________
4. Downpayment
(A) Cash $________
(B) Trade-in allowance $________
5. Item 3 – Item 4 $________
6. Unpaid Balance of Cash Price (Amount Financed) $________
7. Finance Charge at 18% $________
8. Deferred Payment Price (3 + 7) $________
9. Total of Payments (6 + 7) $________

ASSIGNMENT 10

Employee and Other Retail Discounts

Objectives: When this assignment has been completed, you should be able to—

1. *define* employee discounts *as they relate to fringe benefits;*
2. *define* business discounts *and tell who is entitled to them;*
3. *explain the proper use of an employee discount and the responsibility the employee has to ensure its proper use; and*
4. *calculate amount of employee's discount on items purchased.*

Retailers offer discounts to selected people and organizations. Retail discounts are given in the form of reductions on the price of what is bought from the retailer. Getting a discount is a special privilege to anyone, and it does cost the business a loss of income. Discounts may be classified by who gets them, such as employee discounts, business discounts, or builder's discounts.

Who Gets Discounts?

Retail businesses often offer discounts to their employees as a benefit for working for them. An **employee discount** is a discount given on merchandise purchased by the employee or a dependent relative.

These same businesses may also grant discounts to other businesses that do not compete with them. Such discounts are called **business discounts.** Merchandise that is purchased for resale or for use by a nonprofit organization may be entitled to the business discount. PTAs, youth organizations such as DECA, and church groups are just a few of the organizations that retail businesses help by granting discounts.

Other businesses such as builders may be granted a **builder's discount** on merchandise that is purchased to be resold as part of a new or remodeled home or office.

The employee's discount used in the purchase of goods is considered a fringe benefit. Like other fringe benefits, the discount privilege is in addition to the salary or wages paid to the employee. Other examples of fringe benefits are paid vacations, group insurance, and medical coverage. However, employee discounts are handled on the selling floor, not through a personnel department. It is because of this that an explanation of the mathematical calculations is needed.

An employee discount is the same as any other shortage or loss in profit that a store encounters. It is a reduction in revenue. But if the discount is documented correctly, it is considered a controlled shortage and a part of doing business. To complete an employee's discount transaction and grant a discount, certain steps and security measures must be taken.

Employee discounts may range from 10% to 20% depending on the merchandise or service. Discounts may also vary from store to store depending on each store's discount policy. Most stores that grant discounts will allow the discount to be applied to merchandise that is offered at the regular price, sale price, or marked-down price.

Because employee discounts are a form of markdown and cause a loss in revenue, businesses provide employees with a clear and concise statement as to who may use the privilege. The employee discount privilege is only for you and eligible dependents, and it is not meant for you to bring friends to the store and let them take advantage of your benefit. Eligible dependents are defined as your spouse and immediate family members you support. Examples are children under the age of 18 years of age who live at home, children away at college through the age of 22, or parents whom you support who live with you.

Any abuse of the discount privilege is considered a violation of company rules and can result in termination.

Handling Discounts

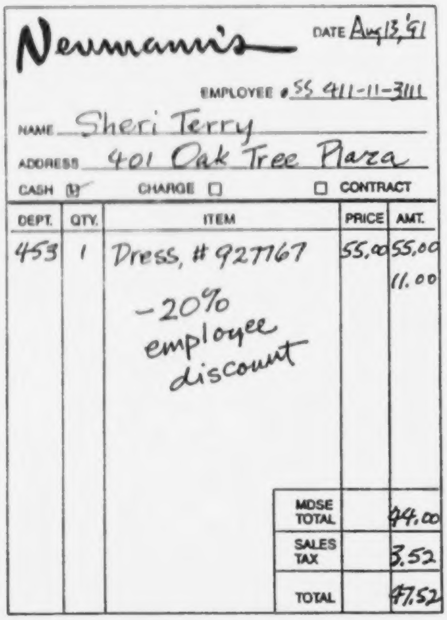
The procedure used in handling an employee discount is relatively simple. However, certain specific steps may vary from store to store. These are typical steps.

- Step 1: The "customer" must identify herself or himself as an employee or dependent of an employee of the store in order to receive the discount. The employee must present an identification card before the transaction begins.
- Step 2: The employee information must be documented on the sales slip.
- Step 3: All discountable items must be recorded on the sales slip, and the information entered into the cash register.
- Step 4: After the transaction has been processed through the register and the amount tendered, authorization must be obtained.
- Step 5: The merchandise must be placed in a bag with the receipt stapled on the outside. The bag may be inspected at any time by management or security.

Example: Sheri Terry, an employee at Neumann's Department Store, wishes to purchase a dress that retails for $55.00. She knows that she must identify herself in order to receive the 20% employee discount. The sale is for cash.

- Step 1: Sheri hands the salesclerk the dress she wishes to purchase and her employee ID card.
- Step 2: The salesperson completes the information section on the sales slip by listing Sheri's name and employee number.
- Step 3: A sales slip containing the following information is completed:

Department #: 453
Item #: 927767
Description: Casual dress
Retail Price: $55.00
Discount: 20%
Tax rate: 8%



Neumann's DATE Aug 13, '91
EMPLOYEE # SS 411-11-3111
NAME Sheri Terry
ADDRESS 401 Oak Tree Plaza
CASH ☑ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
453	1	Dress, # 927767	55.00	55.00
		-20% employee discount		11.00
		MDSE TOTAL		44.00
		SALES TAX		3.52
		TOTAL		47.52

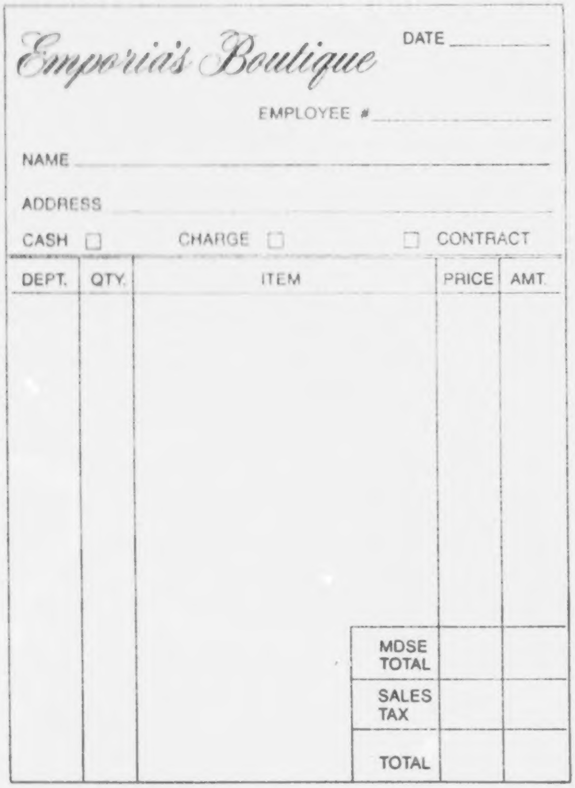
- Step 4: The department supervisor checks Sheri's ID card and initials the sales slip to indicate approval.
- Step 5: The dress in placed in a bag, and the receipt is stapled on the outside of the bag.

Business discounts are handled in much the same way as employee discounts. This gives the store the control it needs to ensure that the discount privilege is not abused. Many stores require the purchaser to charge the merchandise to the business account to be eligible for the discount. Others may only require proof of membership or a Resale Certificate, in order to grant the discount.

Checking for Understanding: Employee and Business Discounts

1. Define *employee discount.*
2. Define *business discount.*
3. Briefly list the steps in handling an employee or business discount.
4. Complete a sales slip for the employee purchases that follow.

Aimee Jones, an associate at Emporia's Boutique, wishes to purchase a necklace (Stock No. 34678) that retails for $38.00. She knows that she must identify herself in order to receive the 25% employee discount. Sales tax is 8%, or 0.08. The sale is for cash, and the department is No. 12.



Emporia's Boutique DATE ____________

EMPLOYEE # ____________

NAME ____________

ADDRESS ____________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

ASSIGNMENT 11

Receiving and Marking Merchandise

Objectives: When you have completed this assignment, you should be able to—

1. *explain what documents are completed or checked when merchandise is received;*
2. *explain why accuracy is important when checking the quantity received against the packing slip and/or invoice;*
3. *tell what kind of information is usually found on a price ticket; and*
4. *list the principles of marking merchandise.*

Receiving Merchandise

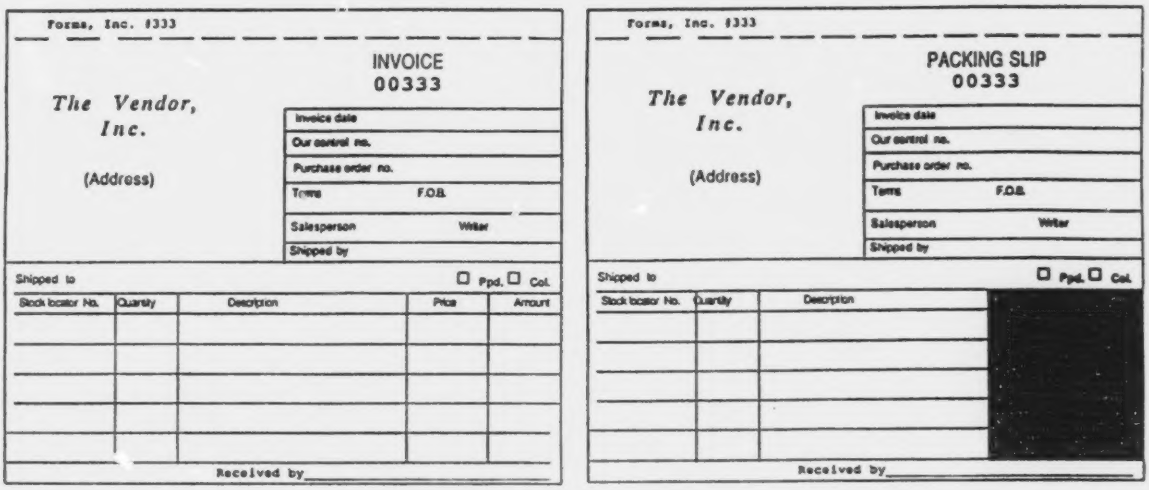
Accurate records are absolutely necessary for receiving incoming merchandise. This involves a physical check of what is received, as well as checking and completing various records related to the merchandise. Even though this assignment does not cover mathematical computations, it does provide information that will help you do tasks without which computations by other employees cannot be done correctly.

An **invoice** is usually mailed the same day as the goods are shipped, so that it can serve as notice that the shipment is on its way. The invoice is the official document of the vendor or shipper of the merchandise. The invoice contains such things as date, the vendor's control number, the store's purchase order number, the terms, the name of the carrier (shipper), to whom the merchandise is being shipped, stock locator numbers, quantities, descriptions, prices per unit, and $ amount resulting from each extension. An invoice may also record the number of cartons being shipped, the weight, discounts available, due dates for payment, and other items that will be particularly helpful in paying the invoice.

Having the invoice at the store makes it possible to check incoming merchandise against the invoice or against the **packing slip**. The packing slip is a duplicate copy of the invoice that has had the columns with unit prices and amounts blacked out (see fig. 1).

When goods are delivered to a store, there is usually a packing slip enclosed with the merchandise. For their checking procedure, many firms use a **receiving record** similar to the example shown in figure 2. This form describes the circumstances of the shipping, as well as provides space to record what is actually received. At the bottom it has space to record decisions made by the receiver, and for a signature.

Many businesses use a **printed apron** to record further details about the shipment of merchandise. For example, the apron may tell who checked the order, what was actually received, whether a claim was filed for damaged or missing merchandise, and when payment was approved. Much of the information is useful to the buyer. As examples, knowing the terms, total retail value, costs, and discounts will help the buyer in making decisions. Invoices are attached to aprons to provide further details. Some stores may just have a rubber stamp to stamp spaces for additional information on the back of each invoice (see fig. 3).



Forms, Inc. #333

The Vendor, Inc.

(Address)

INVOICE
00333

Invoice date	
Our control no.	
Purchase order no.	
Terms	F.O.B.
Salesperson	Writer
Shipped by	

Shipped to ☐ Ppd. ☐ Col.

Stock locator No.	Quantity	Description	Price	Amount

Received by____________________

Forms, Inc. #333

The Vendor, Inc.

(Address)

PACKING SLIP
00333

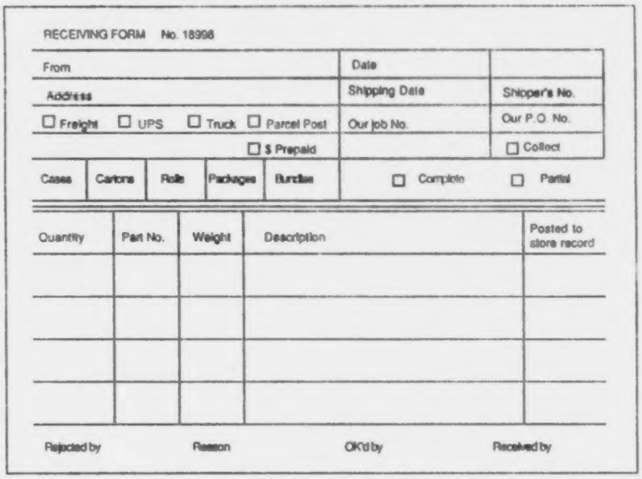
Invoice date	
Our control no.	
Purchase order no.	
Terms	F.O.B.
Salesperson	Writer
Shipped by	

Shipped to ☐ Ppd. ☐ Col.

Stock locator No.	Quantity	Description	[redacted]

Received by____________________

Fig. 1. Invoices and packing slips tell what to expect in incoming orders.



RECEIVING FORM No. 18998

From	Date	
Address	Shipping Date	Shipper's No.
☐ Freight ☐ UPS ☐ Truck ☐ Parcel Post	Our job No.	Our P.O. No.
☐ $ Prepaid		☐ Collect

Cases	Cartons	Rolls	Packages	Bundles	☐ Complete	☐ Partial

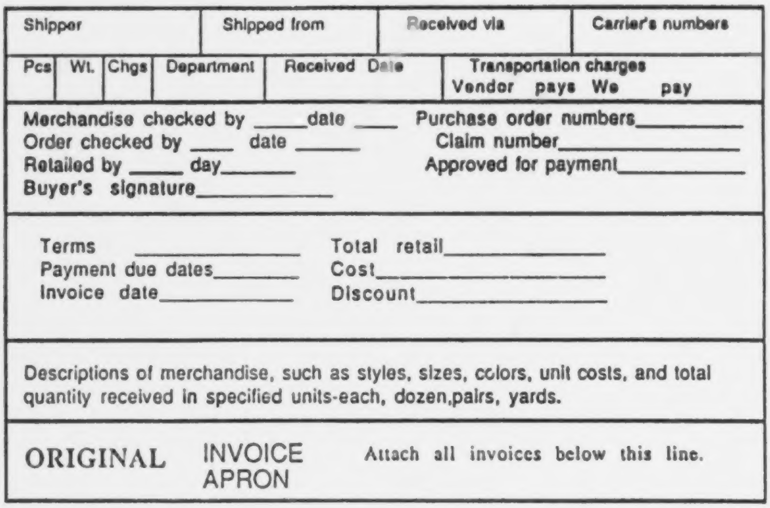
Quantity	Part No.	Weight	Description	Posted to store record

Rejected by Reason OK'd by Received by

Fig. 2. As the merchandise is checked in, it may be recorded on a receiving form such as this.

Information on the Invoice Apron Cover

1. Identifies shipment, has details about shipping.
2. Records actions taken in store
3. Has information related to cost/price
4. Describes merchandise delivered
5. Has place for attaching required other records



Shipper	Shipped from	Received via	Carrier's numbers

Pcs	Wt.	Chgs	Department	Received Date	Transportation charges Vendor pays We pay

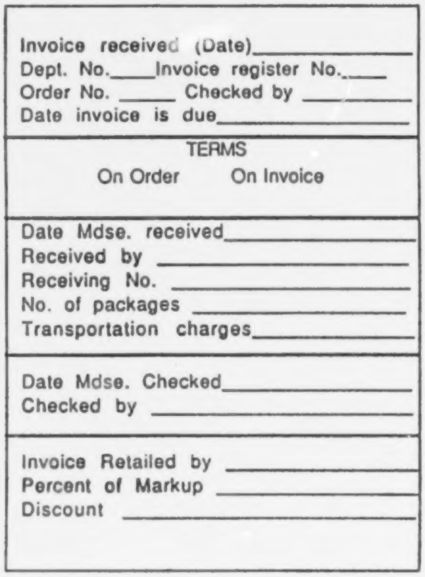
Merchandise checked by _____ date ____
Order checked by ____ date ______
Retailed by _____ day_______
Buyer's signature____________
Purchase order numbers__________
Claim number_____________
Approved for payment___________

Terms ______________
Payment due dates_______
Invoice date___________
Total retail_____________
Cost_________________
Discount_______________

Descriptions of merchandise, such as styles, sizes, colors, unit costs, and total quantity received in specified units-each, dozen,pairs, yards.

ORIGINAL INVOICE APRON Attach all invoices below this line.

Fig. 3. An apron (above) or a rubber stamp (below) may be used to record additional details related to the receipt of merchandise. Records show who did specific tasks, and what has been done. They also have important financial information for the buyer to use in planning.



Invoice received (Date)____________
Dept. No.____Invoice register No.____
Order No. _____ Checked by _________
Date invoice is due_______________

TERMS
On Order On Invoice

Date Mdse. received_______________
Received by _____________________
Receiving No. ___________________
No. of packages _________________
Transportation charges____________

Date Mdse. Checked______________
Checked by ____________________

Invoice Retailed by ______________
Percent of Markup _______________
Discount ______________________

Checking in an Order

Several steps must be taken before the incoming merchandise will be ready for sale.

- Step 1: Merchandise must be unpacked.
- Step 2: Merchandise must be checked for damage or spoilage.
- Step 3: Each item must be counted and checked against the invoice. This step must be done carefully to be sure that the actual goods received are in agreement with the amounts listed on the invoice.
- Step 4: Each item must be checked off as it is counted.
- Step 5: The checker must initial the invoice after all merchandise has been checked. Then if any questions arise, the person whose initials are on the invoice can be found without delay.
- Step 6: In the accounting department, the invoice must be checked for mathematical accuracy.

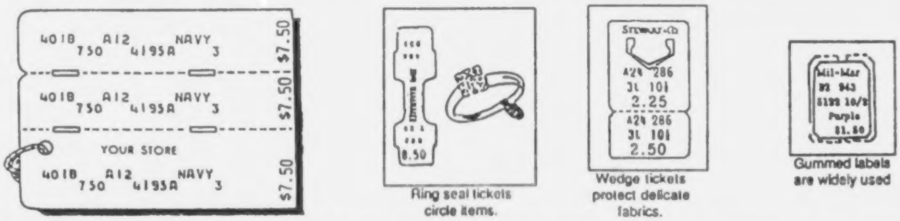
Checking for Understanding: Receiving Forms and Checking in an Order

1. Tell the purposes of an invoice, packing slip, receiving form, and apron.
2. Explain how a packing slip and invoice are similar and how they differ.
3. Why is an apron important to a buyer?
4. Why is it important for the checker to initialize the invoice?

Marking Merchandise

Marking the merchandise is the last step in the receiving process. Even though there are no mathematical computations needed to physically mark merchandise, it is important to keep in mind that this is certainly no place for errors or carelessness. Each mark on a price tag or ticket provides vital information that must be absolutely accurate. So, you must give the same attention to detail you would use in calculating when you are making tickets or affixing them to the merchandise. After all other steps have been completed and the item has been checked, inspected, and classified, it is ready for price-marking. Pricing-marking can be almost anything. It can be a rubber stamp, a handwritten figure, a gummed label, a string, or pin tickets of various sizes and types. Most modern operations have a price-marking machine that turns out printed price tickets.

Each ticket contains a variety of information depending upon the owner's wishes and the data needed (see fig. 4). Most contain at least this information: (1) date code showing when merchandise was received; (2) cost code showing actual price of merchandise; (3) source code, where the merchandise was purchased; (4) retail price; (5) style, color, size, fabric, and other necessary descriptors. In addition, there may be department codes and stock numbers.



Ring seal tickets circle items.

Wedge tickets protect delicate fabrics.

Gummed labels are widely used

Fig. 4. Price tags often have coded information in addition to the retail price. Most stores have a variety of marking tags, stickers, and tickets.

These are the **principles of marking merchandise**:

(1) The price mark should be readily distinguishable as the official marking.
(2) Marking should be sufficiently permanent to last until the merchandise is sold—and then be readily removable.
(3) Marking must not injure the merchandise when the price is put on by the marker, or when removed by the customer.
(4) Marking should be such as to make the price readily available to the salesclerk and to the customer.
(5) Marking should be neat, legible, not unattractive.
(6) Marking should be such as to allow for ease in price revision.
(7) Marking should involve as few standard methods in one department as possible.
(8) Use the fastest practical method of marking, bearing in mind the cost of labor and supplies.

Checking for Understanding: Price Marking

1. Identify the kinds of information found on a price ticket or tag.
2. List five of the principles used in marking merchandise.

ASSIGNMENT 12

Markdowns and Other Price Changes

Objectives: When this assignment has been completed, you should be able to—

1. *define* markdown *and other price changes;*
2. *describe the situations when markdowns are taken on merchandise;*
3. *explain why accurate records of price changes are important to store operation and inventory procedures;*
4. *calculate the amount of a markdown; and*
5. *calculate the new selling price after a markdown is taken.*

Good merchandising policy uses every method to move merchandise, even if it means reducing the selling price. Some items simply will not sell—because of price, color, style, quality, season—or for countless other reasons.

A markdown is any reduction from the existing selling price. The markdown may be taken because the merchandise is slow-moving, because of stock reduction prior to inventory, because seasonal changes demand clearance of an item to make room for new seasonal merchandise, because of a drop in the general price structure of merchandise—and for many other reasons. Rather than retain the items at the original price and have them gather dust, take up expensive selling space, and lose profits, a buyer should take whatever selling price reduction she or he feels is necessary to move the merchandise.

Markdowns are only one price change that might be taken in relation to the original retail price. A manager or a buyer may decide to cancel the markdown, or may decide that an additional markup on the original price or the new price is desirable. In fact, changes may take place day to day, and involve any and all items the store or department sells.

For whatever reason a price change is made, it must be calculated and recorded accurately. If they do their part, cashiers, salespersons, and other employees can make the jobs of managers and buyers easier. The store as a whole also benefits from careful work.

Markdowns and Management

A manager knows at the start of a selling period that some of the items will have to be marked down in order to sell. Which items must be marked down, and when, are hard to anticipate. Records from previous years may show that in order to have net sales of $100,000.00 a year the store will have to take markdowns that total $10,000.00. That fact has three results.

1. The manager may have to order additional merchandise in order to ensure reaching the net sales goal. The goal of $100,000.00 would require merchandise worth $110,000.00.
2. A dollar limit will have to be set and met. The manager may decide that total markdowns cannot exceed $10,000.00.
3. A system for controlling the markdowns must be established.

At this management level the markdown goal may be expressed as a percentage of net sales, so it can be more easily adjusted when sale goals change. If the store plans $100,000.00 net sales this year, then it will control markdowns at $10,000.00, or 10%. Using that 10% as a guide, the manager would plan markdowns of $12,000.00 if the net sales goal is increased to $120,000.00. The percentage stated here does not relate directly to markdown percentages used in pricing the merchandise to the customer. It is simply a planning tool for management.

Managing price changes on a day-by-day basis can become quite difficult, because the manager has to keep track of the impact of every decision in terms of the markdown limit for the period. Markdowns, markdown cancellations, and additional markups can all affect what must be done next.

Markdowns, Shortages, and Other Price Changes

Actual counts, or **physical inventories**, are taken by stores only at certain times of the year. In between those times, a **book inventory** is maintained to provide an estimate of the stock on hand. Good records are crucial to accurate book inventories. If a markdown is taken but not recorded, the next physical inventory may indicate that items have been stolen or lost. At that time there will be an **inventory stock shortage,** which is defined as the value of the book inventory in excess of the physical inventory.

This is how that works. Suppose that 50 VCRs with a retail value of $300.00 each are purchased and put in stock. After 40 are sold, it becomes obvious that a markdown is required to sell the rest. The store decides on a 20% markdown for the last 10. The last 10 VCRs are then sold for 20% off their original retail price—$240.00 each. If a record were not kept, it would appear that there should be two left in stock. Mathematically, this is why:

- The 50 VCRs should bring in $15,000.00 (50 × $300.00).
- The first 40 bring in their part of the estimate – $12,000.00.
- The last 10 bring in only $2,400.00 (10 × $240), making it appear that only 8 have been sold at $300.00 each. The book inventory will be $600.00 higher than the physical inventory.

However, the store will have set up records to reflect the price change, so the manager can keep track of the effect of this $600.00 markdown and know what is happening at all times. It will be related to total net sales rather than just this item, and will be included in the limit set for all markdowns for the period.

All markdowns are shortages, but not all shortages are markdowns. Other shortages are the results of theft, breakage, sales in excess of amounts charged customers, and clerical errors. Markups and failures to post markdown cancellations can contribute toward a stock overage, or at least confuse the shortage impact.

A markdown is a controlled shortage as long as it is correctly entered on the books and records. It can be planned for in advance, and management can control its impact.

How the buyer or other manager stays within the departmental goal of 10% is complicated in terms of deciding both how customers will react and what price changes are needed. In fact, many price changes may be planned day to day, and the buyer has to know the effect of all of them. Price changes in dollars may be set for specific items, or markdown percentages may be set for groups of merchandise.

Calculating a Selling Price

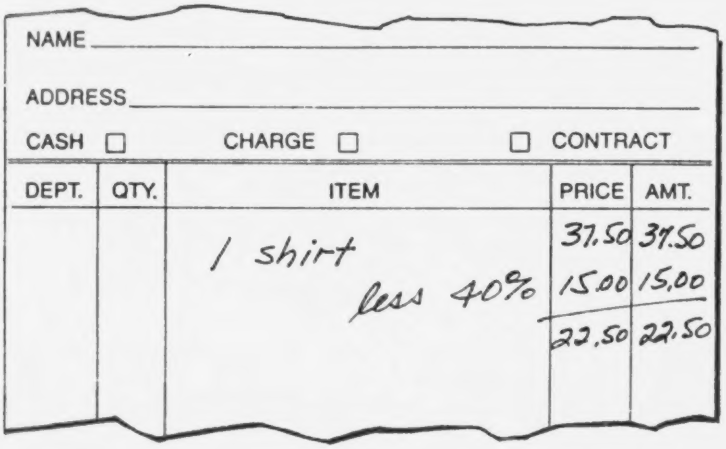
If you work as a cashier, you will be reducing the price of merchandise when your employer instructs you to do so. The instruction may state either a dollar amount or a percentage figure for that particular situation.

Percentage reductions can be done by one of two methods. If your store is not equipped with computerized cash registers, you may have to calculate the new selling price each time a customer wishes to purchase an item that is on sale. Or you may have to mark the tickets of the items to be reduced in price. This will allow the customer to see the new selling price without having to calculate it. Either way, you will be expected to know how to determine the amount of the markdown as well as the new selling price. These are the steps:

1. On the sales slip, list the original selling price.
2. Multiply the original selling price times the markdown percentage to get the amount of the markdown.
3. List this amount under the selling price.
4. Subtract the markdown amount from the original selling price. This is the amount the customer is to pay (before the sales tax is added on).

Figure 1 shows a sales slip on which this markdown has been recorded.

1 shirt	$37.50
less 40%	− 15.00
	$22.50



NAME ______________________

ADDRESS ______________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		1 shirt	37.50	37.50
		less 40%	15.00	15.00
			22.50	22.50

Fig. 1. Showing a markdown on a sales slip

If your store is computerized, you will be given instructions on calculating the price reduction using the cash register. Each item as it is purchased will be marked down. But even with this mechanical aid, it will sometimes be necessary to calculate the amount of a reduction for a customer quickly and without actually selling him or her the item. This ability will provide better customer service and give you more credibility with your customers. This, in turn, could result in repeat business for your store.

Checking for Understanding: Calculating the $ Value of a % Markdown

Unless your teacher directs you otherwise, do not write in this space. The sales slip may be copied for your use, or you may simply show your calculations line by line.

Bridgett works at Long's Jewelry Store. A customer wanted to purchase the following items with the corresponding price reductions:

1 silver necklace $65.00 less 40%
1 silver bracelet $42.75 less 25%
1 pair of silver earrings $27.50 less 30%

Complete the sales slip below, and determine the amount the customer owes, before figuring the sales tax.

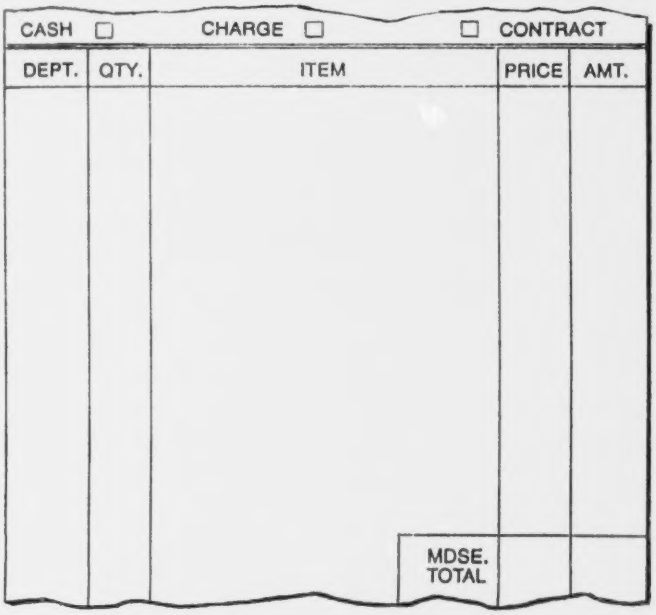


Fig. 2. A blank sales slip

Calculating the Percentage of a $ Markdown

In some cases the markdown may be marked on the price tag as a dollar amount, and the customer may wish to know how much is being saved. That can be calculated using this equation:

$$\frac{\text{Reduction in price}}{\text{Previous price}} = \text{\% of markdown}$$

This would be the result if a $10.00 item is marked down $4.00 to become $6.00:

$\frac{\$4}{\$10}$ = 0.40, or a 40% reduction

Checking for Understanding: Calculating the % Rate for a $ Markdown

Unless your teacher directs you otherwise, write your calculations and answers elsewhere.

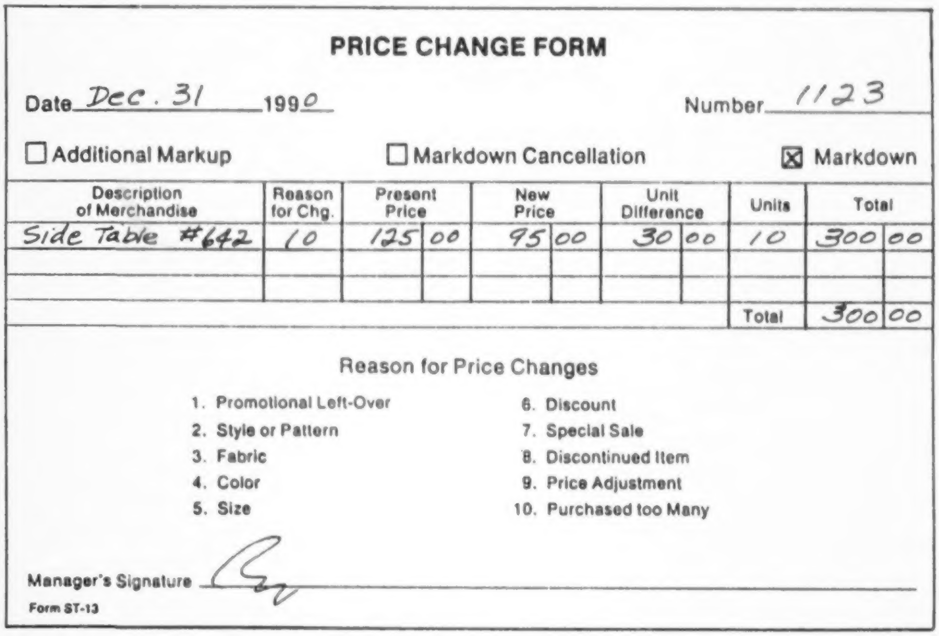
The original price of a dress is $90.00. The sale price is $49.95. What is the amount of the markdown in dollars? ______________ How much is the price reduction as a percentage of the original price?______________

Price Change Forms

All price reductions must be recorded for bookkeeping purposes using one of a variety of forms. The form for price changes illustrated below is standardized and widely used. Some stores may use a slightly different form, but the information and procedures for entering amounts will be essentially the same. In some cases there will be separate forms for markups and markdowns.

The correct way to record a markdown is to show the exact amount of the markdown per unit and the number of units receiving the reduction. The extension is carried over to the last column, showing the total amount of reductions, and then a total figure at the bottom of the sheet which reflects the entire amount of all units recorded.

In figure 3, a side table has been recorded at its original selling price, its new selling price, the amount of difference per unit, and the number of units receiving the reduction in selling price, followed by the extension of the entire amount.



PRICE CHANGE FORM

Date Dec. 31 1990

Number 1123

☐ Additional Markup ☐ Markdown Cancellation ☒ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
Side Table #642	10	125	00	95	00	30	00	10	300	00
								Total	300	00

Reason for Price Changes

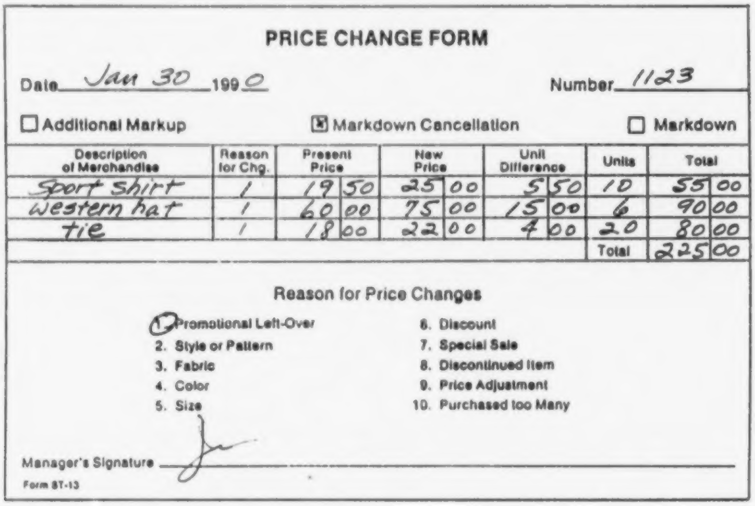
1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature

Form ST-13

Fig. 3. A form for recording price changes

If any of the items receiving a markdown are restored to the original selling price, that transaction must also be recorded. One way to do this is to show the change as a markdown cancellation, as in figure 4. On the price change form, the sport shirt, western hat, and tie had been reduced for a promotional event, but the original selling price, before the special promotion, is restored as a "new price" on the remaining inventory.



PRICE CHANGE FORM

Date Jan 30 1990 Number 1123

☐ Additional Markup ☒ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
Sport shirt	1	19	50	25	00	5	50	10	55	00
western hat	1	60	00	75	00	15	00	6	90	00
tie	1	18	00	22	00	4	00	20	80	00
								Total	225	00

Reason for Price Changes

[✓ 1.] Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature

Form ST-13

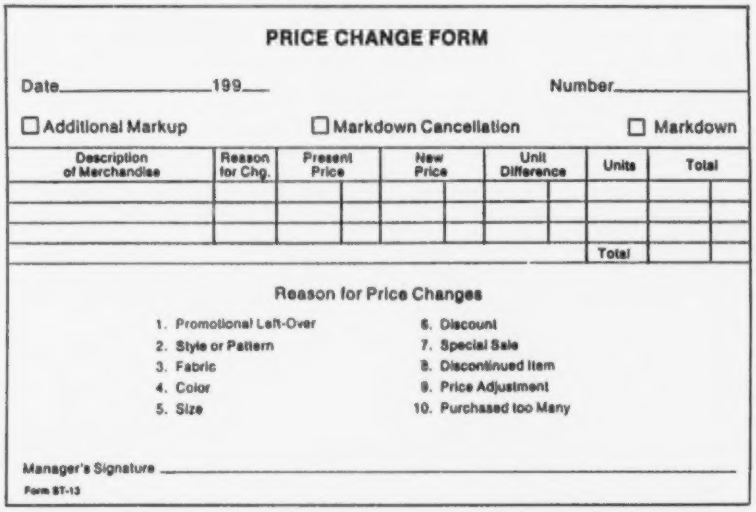
Fig. 4. One way to restore a price

Checking for Understanding: Recording Price Changes

Unless your teacher directs you otherwise, do not write on this form. You may copy it for use, or you may write the merchandise items on separate lines.

Miller's Appliance is having a "One-Day Sale" and reducing the price on several washers and dryers. Use the following information to complete the price change form:

4 - 12 cycle washer #6309 from $550.00 to $349.99
9 - 8 cycle washer #7308 from $379.00 to $289.99
5 - electric dryer #7057 from $400.00 to $229.99



PRICE CHANGE FORM

Date____________199__ Number____________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
								Total		

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ____________________

Form ST-13

ASSIGNMENT 13

Taking Inventory

Objectives: When this assignment has been completed, you should be able to—

1. *describe the main ways that inventory is counted and recorded;*
2. *tell why a physical inventory is necessary;*
3. *state the facts a physical inventory gives to management; and*
4. *perform some of the tasks associated with keeping an inventory.*

An inventory is a check, inspection, and accounting of merchandise on hand. There are two types—physical inventory and book inventory. A **physical inventory** is a counting of what is on hand. A **book inventory** relies on records of what comes into the store and what is sold or otherwise leaves the store.

If records are properly kept, a manager may know at any time how much inventory is on hand and how much is invested in that inventory. Many times a book inventory does not give the true picture. It is for this reason that a physical inventory is taken to count exactly how much stock is on hand. The difference between the two is known as **shrinkage** if the book inventory exceeds the physical inventory. On the other hand, if the book inventory is less than the physical inventory, it is called **overage**.

Shrinkage is a term used to cover losses in merchandise from such things as shoplifting and theft, or damage from storage and handling, or old stock on hand. Errors in bookkeeping and in keeping records can also cause shrinkage or overage.

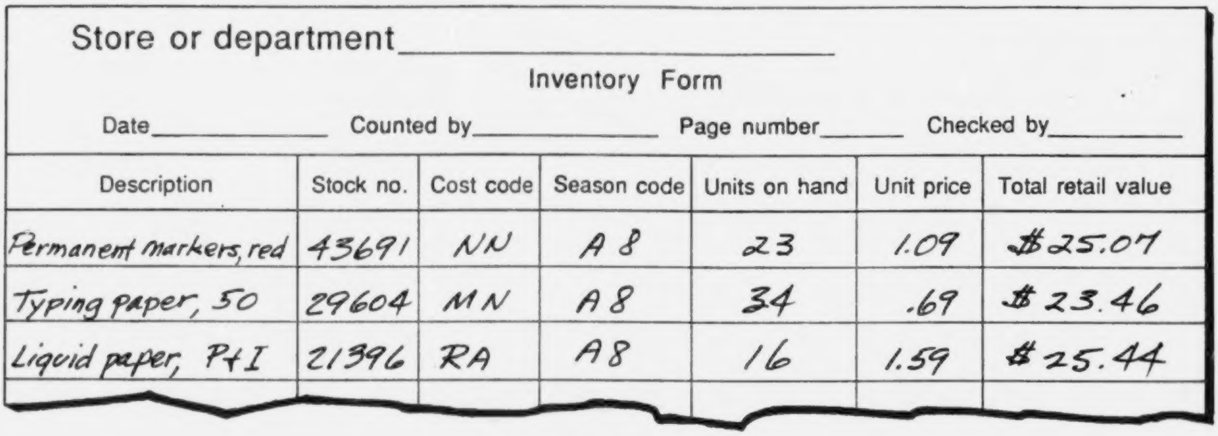
Taking inventory is one of the more important jobs involved in retailing. A physical inventory provides these benefits to management:

(1) It confirms the actual number of items on hand by description, stock number, and department.
(2) It confirms the actual dollar cost invested in inventory (or retail value?) at the time inventory is taken.
(3) It permits a visual inspection of items to sort out damaged, soiled, or old stock that is no longer salable.
(4) It permits a check on old stock that should be rotated so that it is sold first.
(5) It lets management determine the exact amount of shrinkage and, by comparing sales and invoice records with inventory sheets, isolate the departments and exact items where shrinkage occurs most often.

Counting and Recording

There are several methods of counting and recording an inventory. When you take inventory, it is usually best to be part of a team of two with a designated area. One person counts, and the other lists the items on the inventory sheet. However, some stores have found that one person can count and list merchandise just as accurately and more quickly than a team of two. The information that inventory sheets may provide spaces for recording are:

(1) a description of the merchandise
(2) the stock number
(3) the cost code, which also may be placed on price labels
(4) the age (season) code, which helps in planning what to do and also will appear on labels
(5) the unit price of each item
(6) the retail value of all the items of a specific type (extended price)
(7) the total retail value for the page



Store or department________________________

Inventory Form

Date__________ Counted by__________ Page number_____ Checked by_________

Description	Stock no.	Cost code	Season code	Units on hand	Unit price	Total retail value
Permanent markers, red	43691	NN	A 8	23	1.09	$25.07
Typing paper, 50	29604	MN	A 8	34	.69	$ 23.46
Liquid paper, P+I	21396	RA	A8	16	1.59	$ 25.44

Fig. 1. Inventory form

Figure 1 shows an example of what might be recorded on an inventory form. This includes places for recording "codes" that are meaningful only if you know what the letters mean.

When an area has been counted, the inventory sheet is left on top of the merchandise at the end. A second team will double-check by recounting and making sure that the first team did not miss, overlook, or miscount any item.

The specific practices used in counting merchandise will vary from store to store. Your employer will give each employee the training necessary to ensure that the inventory is completed accurately. The basic requirements may include such things as the following:

(1) Always print all information.
(2) Do not make any erasures (use only a pencil with the eraser removed); *or* use only a *green* ballpoint pen.
(3) Print the description of the item (include style number, cost code, etc.).
(4) Using the tag on the merchandise, list the season code.
(5) Count each item with the same style number, being careful that items do not get counted as one instead of two.
(6) Print the price of the item.
(7) Sign the inventory form by writing your first initial and your last name (if working in a team, both members must sign the inventory form).

For example, figure 1 showed a record made of this merchandise:

Permanent markers, red	Stock #43691	Cost code	NN
Season code A8	23 units	1.09 per unit	Total retail value $25.07
Typing paper, 50 sheet packages	Stock #29604	Cost code	MN
Season code A 8	34 units	0.69 per unit	Total retail value $23.64
Liquid Paper, Pen & Ink	Stock #21396	Cost code	RA
Season code A8	16 units	1.59 per unit	Total retail value $25.44

In this case, the cost code was based on the name "TOM ANDREWS," with each letter being a number: T for 1, O for 2, M for 3, and so on to S for 0. The 8 represents the 8th month, August, of the current school year. Because they're all A8, the items were purchased at the same time.

Checking for Understanding: Keeping Inventory

Unless otherwise directed by your teacher, do not write in this space.

1. Describe two ways that inventory is counted and recorded.
2. Why is a physical inventory necessary?
3. What are some of the facts a physical inventory gives to management?

ASSIGNMENT 14

Cash Discounts

Objectives: When this assignment has been completed, you should be able to—

1. *define* cash discount, net, net 30, EOM, extra/datings, as of (date), *and* anticipation, *as these terms relate to invoices; and*
2. *figure cash discounts using various methods, given the invoice information.*

Success in marketing requires that you understand the concepts and terms used to determine *when* a merchant is to pay for merchandise bought for resale and *how much* money is to be paid for the merchandise. Information about the terms needs to be taken into consideration when calculating the retail price for the merchandise. Obviously, the better terms a merchant gets on merchandise he or she buys, the more profit she or he will realize from its resale—or the less he/she will have to charge for the items when they are resold.

cash discounts—discounts offered by vendors to encourage buyers to pay accounts promptly.

extra dating—a form of discounting that allows additional time for payment of an account.

receipt of goods (ROG) dating—a practice permitting discounts on merchandise purchased to be figured from the time goods are received rather than from the time goods are shipped from the vendor. This type of discounting is considered valuable on goods coming from a distant vendor such as foreign or long distance vendors.

end of month (EOM) dating—means that the time for payment is figured from the end of the month in which the goods were invoiced rather than basing the discount on the date of the invoice.

advance dating—means that a specific date such as "as of January 1" is listed on the invoice, and that this date is used in figuring the discount period and net period.

discount period—the time during which an amount can be deducted from the payment due.

net period—the time in which the full bill must be paid.

trade discounts—indicates that there is a published price for the resale of an item (the item is prepriced), but discounts will be given to distributors.

quantity discounts—discounts given by the vendor to encourage large orders.

cumulative discounts—similar to quantity discounts in that they are offered for volume purchases. However, cumulative discounts are offered on merchandise bought over a period of months rather than merchandise purchased at one time.

Cash Discounts

A **cash discount** is a deduction allowed for the prompt payment of an invoice. The terms of the agreed cash discount and the number of days that the terms are valid are stated on the invoice.

The terms of an invoice are usually valid only for a short period of time, unless specifically stated. If there are no terms stated, or if the terms simply state "net," then the full amount of the bill is understood to be due and payable within 30 days of the date on the invoice. If the terms state "2/10," this means that a 2% discount will be allowed if the bill is paid in 10 days. Otherwise, the full amount is due within 30 days from the date of the invoice.

All terms and dating begin on the day *after* the date appearing on the invoice, except those terms which are specially dated from receipt of goods or have an "as of" designation.

Although **n/30** is the usual time period found on invoices, others are often used. Invoice terms tell the buyer when this is the case. For instance, sometimes the time allowed for payment will date from the "end of the month" rather than the "date on the invoice." When this is the case, the invoice term EOM (end of month) is present as in 2/10, net 30 EOM. A buyer must pay this bill within ten days from the end of the month shown on the invoice in order to take the cash discount. If the discount is not taken, the net payment must be paid within 30 days of the end of the month shown on the invoice.

Sometimes payment time is figured from the time that items are received by the buyer. When this is the case, the invoice notation ROG (receipt of goods) is present, as in 3/10, net 30 ROG. A buyer must pay the bill 10 days after the receipt of the goods to get the cash discount. If the discount is not taken, the net payment must be paid within 30 days of the receipt of the goods.

"Extra days" are sometimes given for payment. When this is the case, the invoice terms reflect the extra days. For example, if 40 extra days are allowed for payment, the invoice terms might look like this—2/10, net 30, 40X. The invoice term *40X* means that the buyer would have 50 days to take advantage of the cash discount (10 + 40 = 50), and 70 days (30 + 40 = 70) to make the final payment. When extra days appear in the invoice terms, the seller is using "extra dating."

Occasionally, invoices use "advance dating." When this is the case, the invoice terms reflect that the discount and final payment dates begin on a "stated" date rather than the date on the invoice. For instance, if the terms on the invoice show 2/10, net 30, as of August 1 on an invoice dated May 1, the cash discount could be taken until August 11 (August 1 + 10 days). And net payment is due August 31 (August 1 + 30 days).

Checking for Understanding: Effects of Terms on Payments Made

Give the explanation for each of the following notations of terms offered:

1. 2/10
2. net 30
3. 4/8 as of July 1
4. 3/10 ROG
5. 2/10, X60

Discount Calculations

The actual calculation of what the discount will be is quite simple. The billed cost (or net total) is multiplied by the cash discount rate or percent. Billed cost is the invoice amount after trade and quantity discounts have been taken but before the cash discount and anticipation discount are deducted. The resulting discount is then subtracted from the billed cost.

$1,000 billed × 0.02 discount = $20. New bill is $980.

Determining Time for Taking Discounts and Paying

Because it is so important to be accurate, the days specified by the terms of an invoice are either counted or determined mathematically. For example, if the invoice states 10/20 and is dated

January 1, then the bill has to be paid by January 21. If the terms are 10/20 and the date is January 15, then it has to be paid by February 4. That accounts for 16 days in January and 4 in February.

Calculations to determine dates can't be done unless you know the lengths of the months. Some helps in memorizing them are in a later assignment. The following chart can be used in working the problems in this assignment.

January—31
February—28, or 29 in a leap year
March—31
April—30
May—31
June—30
July—31
August—31
September—30
October—31
November—30
December—31

ASSIGNMENT 15

Information on Invoices

Objectives: When this assignment has been completed, you should be able to—

1. *explain what an invoice is, and how to use one;*
2. *discuss the various parts of an invoice;*
3. *explain what "terms of payment" are; and*
4. *define terms related to transportation charges.*

When a retailer orders merchandise from a manufacturer or vendor, a **purchase order** is sent giving information about the exact items desired. When the manufacturer or vendor ships the merchandise to the retailer, an **invoice** is sent to the buyer. The invoice has valuable information to help the retailer do business more effectively. Buyers or persons receiving the merchandise check content against the invoice to see if the correct items are present in the correct amounts, and at the correct prices. Other information is also checked. An invoice is likely to include transportation charges, shipping instructions, and terms of payment. If everything is in order, the invoice is approved for payment.

Some of the contents of an invoice were covered earlier. By inspecting an invoice from top to bottom, using figure 1, you can learn why it is so important to understand each invoice. This sample invoice has more information than the earlier sample, which focussed on checking merchandise when it is received. Invoices have other uses.

Item by item, here are the parts of an invoice:

1 The vendor's full address and telephone number are provided, for obtaining further information and making payment.

2 The number of the specific invoice is identified, so it can be referred to later.

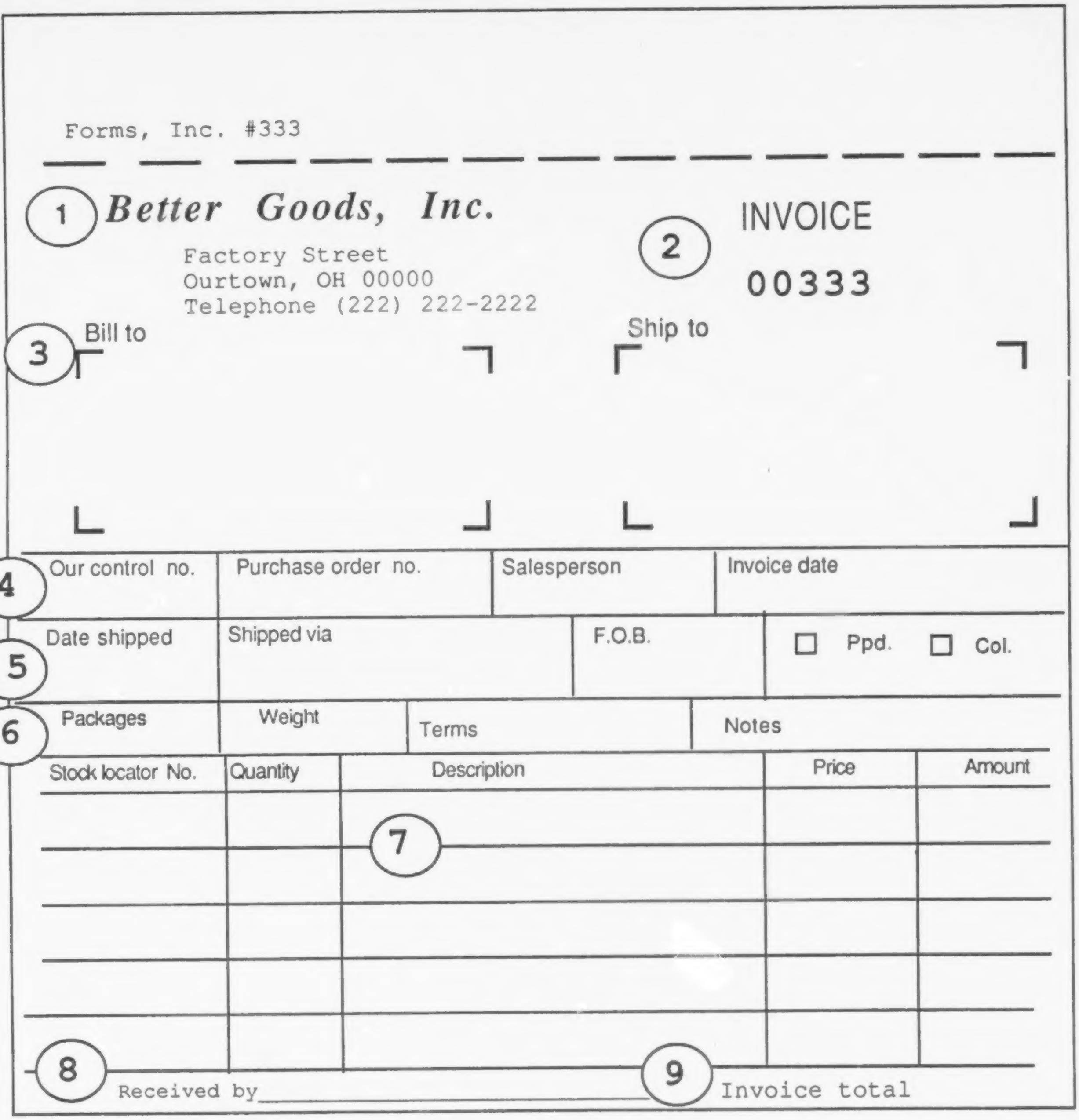
3 Spaces for typing two addresses are often provided—a space for billing purposes and one for shipping purposes.

4 This line has several items, all helpful in locating information and specifying what is being discussed in a letter, on the telephone, or by FAX. The vendor often has a control number. The buyer will have a number for the purchase order that tells what was originally ordered. For a variety of reasons the purchase order is checked carefully against the invoice and merchandise received. Naming the salesperson will help locate the right person for information. The invoice date can also help in getting service or locating information.

5 The items on line 5 have to do with transportation charges and shipping instructions.

Transportation charges reflect the cost of transporting goods. There may or may not be transportation charges. As the indicated at the end of the line, merchandise can arrive postpaid or collect. Several arrangements for reimbursing the vendor for transportation charges are also possible. Transportation charges are added to the cost of the goods. If paid by the retailer they must be considered when figuring retail price.

Shipping instructions are important to review when merchandise is received. For example, if a retailer specified that some merchandise was to be sent motor freight and the vendor sent it air freight, the retailer is entitled to deduct the difference in the cost of sending it air freight instead of motor freight. If transportation charges are paid by the retailer, these charges are to be added to the invoice price to determine the total cost of goods or merchandise.



Forms, Inc. #333

① **Better Goods, Inc.**

Factory Street
Ourtown, OH 00000
Telephone (222) 222-2222

② INVOICE
00333

③ Bill to

Ship to

④ Our control no.	Purchase order no.	Salesperson	Invoice date	
⑤ Date shipped	Shipped via	F.O.B.	☐ Ppd. ☐ Col.	
⑥ Packages	Weight	Terms	Notes	
Stock locator No.	Quantity	Description ⑦	Price	Amount

⑧ Received by____________________ ⑨ Invoice total

Fig. 1. Invoices such as this one provide information needed in several tasks done by retailers.

The retailer may have specified what transportation to use, and this will affect the cost of transportation, arrival date, and perhaps even condition. The invoice may be checked against the retailer's shipping instructions.

Date shipped can help in estimating when to expect the merchandise, as well as in tracking it down if it isn't received on time.

Shipped via refers to the company doing the transportation. This helps in determining if shipping instructions have been followed. Knowing the shipping company also helps in locating shipments. An identification number for the shipment may be included. Today, computerization makes it possible to locate shipments en route if you have enough information.

The **F.O.B.** (free-on-board) destination point indicates the geographic point to which the merchandise is delivered free. There are three possible points (not including P.O.E.):

F.O.B. factory means the buyer must pay transportation charges from the factory to his/her place of business.

F.O.B. destination means the buyer pays no transportation charges.

F.O.B. St. Louis (or any city) means the buyer must pay transportation charges from St. Louis to the final destination of the merchandise. Transportation charges to St. Louis are paid by the manufacturer.

P.O.E. (port-of-entry) indicates the port or place that the goods enter the country. It is from this point that the retailer must pay transportation charges. For example, F.O.B. Gulf Coast P.O.E. means the buyer would pay transportation charges from the Gulf Coast port of entry to the merchandise's destination.

6 Information on this line serves a variety of purposes.

The number of **packages** may be included so the receiver of goods will know what to expect in the shipment. It can also be useful in tracking down a shipment that has not arrived when expected.

The **weight** may be given for checking in determining if transportation charges are correct.

Terms refers to **terms of payment**, covered in more detail in Assignment 14, on cash discounts. This indicates conditions under which payment is expected, and specifies ways that the merchant can save money. Basically, they give deadlines for when payment is to be made, and specify what percent can be saved by meeting those deadlines. Short abbreviations in this space indicate significantly different terms. Assignment 14 on cash discounts covers these terms in detail.

Space may be provided on this line—or elsewhere on the invoice—for specific notes. One possibility is an explanation about merchandise to be shipped later.

7 This area of the invoice includes all the details of the merchandise itself, as explained in Assignment 1, on receiving and marking goods.
8 Space is provided at the bottom of an invoice for the signature of the person responsible for receiving the goods.
9 The invoice total is provided at the bottom of the amounts column.

Even though there are various versions of invoices, basically an invoice is used to determine if the correct items have been sent in the correct amounts, and at the correct prices. Beyond that, an invoice tells billing dates and information, explains terms of payment, describes transportation used, and has information that can be used in inquiring about the invoice and the merchandise.

ASSIGNMENT 16

Determining Length of Time When Calculating Discounts and Interest

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Objective: When this assignment has been completed, you should be able to compute the number of days needed to figure discounts and interests.

Time is of utmost importance in business. As the old saying goes, "A miss is as good as a mile." In the business world this is particularly true, for to miss a payment by one day is to miss a discount completely. Over a period of time, these losses mount up to large sums of money. Many times a discount is lost because the days are miscalculated. These errors are due primarily to a lack of fundamental knowledge concerning the calendar.

This assignment has two memory aids that will help you be certain you have calculated the number of days correctly. One is visual, the other poetic. A chart that can be used directly is also provided.

A Visual Aid for Remembering Days in a Month

A year has 365 days—except for a leap year (every fourth year), when there are 366 days. In a leap year, February 29 is the extra day.

To use this method, you can disregard leap years, since you can just remember that February has 29 days in a leap year.

First, use the 365-day figure, and compute the days by counting the months:

January	**31 days**	**July**	**31 days**
February	28 days	**August**	**31 days**
March	**31 days**	September	30 days
April	30 days	**October**	**31 days**
May	**31 days**	November	30 days
June	30 days	**December**	**31 days**

Note the pattern followed in the numbers of days of each month. Beginning in January with 31 days, every other month for the first half of the year has 31 days—January, then March, then May, then July. Note that August begins the cycle again with 31 days, then October, and finally December. All months in between have 30 except February, which has 28.

If you double both fists in front of your face, as shown in figure 1, months may be counted by beginning on the first knuckle on the left side of the left hand, then moving to the right. All 31-day months will fall on top of the knuckles.

If you begin with January, the next knuckle is March, then May, then July. After July, move across to the first knuckle of the right hand (next to the thumb), and count August, October, and finally December. In the valleys will be February (28 days except for 29 in leap years), then April, June, September, and November. After practicing this aid, the months will be memorized and the days readily known.

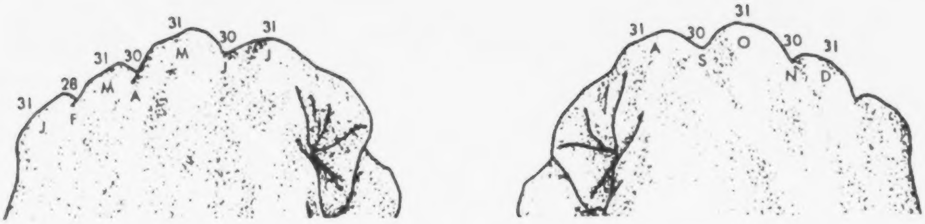


Fig. 1. Your hands are handy for calculating days.

A Poetical Reminder

There is a poem, too, which is used frequently for remembering the number of days in each month:

"Thirty days hath September
April, June and November
All the rest have thirty-one
Save February with twenty-eight
or twenty-nine."

A Chart for Calculating Days

If you do not know the number of days in a month, nor the counting method, nor the poem, then it is best to use a calendar and count. However, counting by calendar days is very slow and time-consuming. The chart shown below is a very accurate means of computing the exact number of days from any given date in a year to any other given day. Such charts may be available on the job. Using this chart will provide practice for this approach.

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Fig. 2. A chart for use in calculating days

Example: Find the exact number of days between July 14 and December 6 of the same year. In the first column to the left find *July*, then follow the line horizontally to the right until you move into the vertical column headed *December*. Here you find the number *153*. This means that from July 14 to December 14 there are 153 days. Since the problem is to count to December 6, subtract the difference between 14 and 6 (14 – 6 = 8 days less), then subtract *8* from *153*. The result is *145* days from July 14 to December 6.

To prove the answer, count this way:

From July 14 to August 14
31 days (31 days in July)
From July 14 to September 14
62 days (31 days in August have been added)
From July 14 to October 14
92 days (30 days in September have been added)
From July 14 to November 14
123 days (31 days in October have been added)
From July 14 to December 14
153 days (30 days in November have been added)
Less 8 days = 145 days total

Checking for Understanding: Using a Chart to Calculate Days

You should follow this procedure but do not need to provide an answer; one will be given. Count the number of days from February 9 of one year to January 22 of the next year. Begin in the horizontal column marked February, move to the first column headed January, and find the figure 334. That means there are 334 days from February 9 to January 9. Subtract 9 from 22 to get 13. Add 13 more days to 334 days, and get the figure 347. That means there are exactly 347 days from February 9 to January 22. If the year counted happens to be a leap year, simply add an additional day to any figure given in the chart, provided that the month of February is counted.

ASSIGNMENT 17

Computing Wages

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* wages, hour rate, piece rate, overtime, gross pay, *and* net pay;
2. *compute wages when the number of hours worked and the hourly rate are given;*
3. *compute piece-rate wages with units completed and the wages per unit given;*
4. *compute overtime wages by either of the two methods presented; and*
5. *interpret information from time cards to compute wages.*

Everyone who works or plans to work is vitally interested in pay. The amount one is paid for a unit of work is only one consideration. Understanding the advantages and disadvantages of different types of earnings is important in understanding your present employment situation and in helping you make wise decisions about your future. There are basically three methods of computing employee's earnings, wages, salaries, and commissions. This assignment will explain one of these methods, wages.

Hourly Wages

Generally, **wages** are defined as money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis. Most Marketing Education students are wage earners who are paid an established rate per hour for the actual number of hours worked each week or two weeks. Although this may vary in some types of jobs and in some business establishments, part-time employees are generally paid weekly. This method of payment is known as *hourly wage.* To compute the regular pay, multiply the number of hours worked times the rate.

Example:

$3.35	regular hourly rate
× 20	hours worked
$67.00	regular wage

If the employee works more than forty hours within one work week, he/she will usually be paid overtime for all hours exceeding the forty-hour work week. **Overtime pay** (or **time and a half**) is usually one and one half times the regular hourly rate. When overtime is worked, the employee's weekly earnings will include regular hours (at regular hourly rate) and overtime hours (at the overtime rate) added together to make up the gross pay (or total pay).

Example:

regular hourly rate × 1 1/2 = overtime rate

The overtime (OT) can be computed in several ways, but two ways are easiest. Once you have made sure of the overtime rate (in this case 1 1/2), the rate should be converted to a decimal (1.5) or a common fraction (3/2). One of the following methods may be used to compute overtime wages:

1.5 × the regular hourly rate
or
3/2 × the regular hourly rate

Checking for Understanding: Hourly Wages

Note: Unless directed otherwise by the teacher, do not write in this space.

Do the following problem. Jean O'Conner is paid $3.40 an hour (regular hourly wage) for a forty-hour week. Her overtime (or time and a half) rate would be 1 1/2 × $3.40. The first week of September, Jean worked 43 hours. How much was Jean's gross pay (total pay) for that week? ________________

Piece-Rate Wages

In some jobs, those of a temporary nature or of a production nature, the employee is paid for the number of pieces produced or finished rather than the actual number of hours worked. This arrangement is referred to as **piece-rate** wages. In marketing, an example of piece-rate pay would be the employee who is paid for the number of sales letters written, or envelopes addressed, sealed, and stamped.

Example:

Erica worked on letters three days this week—Monday, Tuesday, and Thursday. Number of letters completed on Monday + number of letters completed on Tuesday + number of letters completed on Thursday = pieces completed for week.

Checking for Understanding: Piece-Rate Wages

Note: Unless directed otherwise by the teacher, do not write in this space.

Solve the following problem. Stacy Mercer is employed on a piece-rate basis for preparing and stuffing credit statements for mailing at the rate of $0.85 per 100. She prepared 1,200 on Monday, 1,440 on Tuesday, 920 on Wednesday, 600 on Thursday, and 1,040 on Friday. What were her wages for that week? ________________

Net Pay

The calculations for both the hourly wages and the piece-rate wages resulted in a figure called the **gross pay**. After the **gross pay** (or total pay) has been computed, then **withholding tax** (income tax), **social security tax** (FICA), and any other deductions must be subtracted from what the employee will actually receive. The amount of earnings left after the deductions are subtracted is known as **net pay**, or **take-home pay**. This amount can be quite different from the gross pay, because of deductions explained in another assignment.

Time Cards

For most employees who earn hourly wages, the amount of time for which wages are earned is recorded by "punching in" on a time clock. This method of recording time worked is so critical that "punching in" for another employee is considered a termination offense in most companies. Employees "punch in" when beginning work and "punch out" when leaving work. The time left is subtracted from the arrival time to determine the number of hours worked.

Example:

Begin working at 1:30
Leave work at 5:45

5:45 out
− 1:30 in
4:15 hours worked

or

5 3/4 = 5 3/4
− 1 1/2 = − 1 2/4
4 1/4 = 4 1/4 hours worked

Time Card	
Employee #	
Name	Andy Smith
Week ending	
In	11:45 a
Out	4:00 p
In	9:30 a
Out	3:40 p

Since some hours might be worked in the morning (A.M.) and some hours might be worked in the evening (P.M.), the work day must be viewed as a 24-hour day.

The first step in computing the number of hours worked is to convert those hours to a 24-hour timetable (known as military time). All hours from midnight to noon are 1 through 12. Hours from noon to midnight are 13 through 24. In other words, start numbering the hours in a work day after midnight (1) and continue until the next midnight (24).

Example:

Sam started working at 10 A.M. He "punched out" at 3 P.M. The 24-hour timetable (military time) would show him working from 10 until 15.

1 P.M. = 13
2 P.M. = 14
3 P.M. = 15

As you can see, the original afternoon time can simply be added to 12 to get the 24-hour time schedule time for the afternoon (3 P.M. = 12 + 3 = 15).

Having converted the times to a 24-hour time schedule, subtract the time left from the arrival time to determine the number of hours worked.

Checking for Understanding: Time Cards

Note: Unless directed otherwise by the teacher, do not write in this space.
Solve the following problem. Marcia began working at 11 A.M. She stopped working at 7 P.M. How many hours did she work? ________________

Computing Wages from Time Cards

The most common method for computing wages earned is by dividing the 60 minutes in an hour into four parts and "rounding up" to the nearest 1/4 hour. This allows employers to pay employees based on the nearest quarter (1/4) hour of pay earned.

Example: Each 1/4 hour = 0.25 hour
Each 1/2 hour = 0.50 hour
Each 3/4 hour = 0.75 hour

The amount of time worked (converted to a decimal) is then multiplied by the hourly rate.

Example:
Corey began working at 10:15 A.M. and stopped working at 4:00 P.M. Therefore, he worked from 10:15 until 16. His hourly rate is $4.25 per hour.

$$\begin{array}{rcrcr} 16 & = & 15\ 4/4 & \text{or} & 16.00 \\ \underline{-10\ 1/4} & = & \underline{-10\ 1/4} & & \underline{-10.25} \\ & & 5\ 3/4 & & 5.75\ \text{hours} \end{array}$$

Corey worked 5.75 hours at a rate of $4.25/hour.

$$\begin{array}{rl} \$4.25 & \text{hourly rate} \\ \underline{\times 5.75} & \text{hours worked} \\ 2125 & \\ 2975 & \\ \underline{2125} & \\ 24.4375 & \text{or } \$24.44 \text{ wages earned} \end{array}$$

Checking for Understanding: Computing Wages from Time Cards

Note: Unless directed otherwise by the teacher, do not write in this space.
Solve the following problem. Wilson worked 3 3/4 hours on Monday, 2 1/4 hours on Thursday, and 4 1/2 hours on Friday. How many hours did Wilson work that week?

Technical Learning Concepts

Note: Unless directed otherwise by the teacher, do not write in this space. Define the following terms.

gross pay
hourly wage
military time
overtime (OT)
piece-rate
rate
termination offense
wages
net pay

ASSIGNMENT 18

Salaries and Commissions

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms and use them correctly:* commissions, graduated commission, salary, net sales, monthly salary, semimonthly salary, salary plus, quota, quota bonus plan *and* draw;
2. *compute commission earnings when commission rate and net sales amounts are given;*
3. *compute earnings when commission rate, net sales amount, and quota are given;*
4. *compute net earnings when commission rate, net sales amounts, and draw are given; and*
5. *compute salary plus earnings when commission rate, net sales, and salary are given.*

Many full-time employees are paid by salary or commission rather than wages. Often, management-level employees and salespeople are paid a combination of salary and commission. Executives are paid according to their ability, responsibility, and capacity to make decisions. Many executives, especially managers, receive an annual salary plus a commission based on the net sales of the business for the year. In some larger stores, even department managers receive commissions based on net sales for their departments in addition to their regular or base salary.

First, you will need to understand what is meant by salaries and commissions. Then you can learn about the different combinations and methods of computing them.

Salaries

A **salary** is a predetermined amount to be paid to an employee each month or year. This is known as a **monthly salary** or **yearly salary**. In the case of a yearly salary, the amount is divided by 12 to arrive at a monthly pay scale. A **semimonthly salary** is usually a monthly salary divided in half and paid twice during the month. Salaried employees receive that stipulated or set amount each month or year regardless of the actual number of hours worked. The salary is usually based on a set number of hours per week, month, or year. If hours above and beyond the set number are worked, however, the pay remains the same unless otherwise mentioned in the salary agreement.

Example: Sam Tollon is working for a salary of $250.00 week, based on a 45-hour week. During Christmas week, Sam worked 46 hours. His salary was still $250.00 for that week.

Commissions

Commissions are generally a percentage of the **net sales** (gross or total sales less returns and allowances). Management-level employees are usually paid commissions in addition to their base salary. This method is known as **salary plus**. Salespeople are often paid either salary plus commission or straight commission.

The commission rate for **salary plus** is usually 1-5%. The commission (a percentage of the net sales) is computed then added to the base salary to obtain the total or gross pay.

Often, commissions are paid only after a quota is met. **A quota** is a predetermined, specified amount that the salesperson is expected to sell to be considered a productive employee. The sales above the quota earn a commission or bonus. These commissions are sometimes called a **quota bonus plan** (the commissions paid above and beyond the base salary are called a **bonus**).

Example: Catherine Zonetti is the manager of the "Missy" department at Harkins Department Store. Catherine is paid $980.00 per month, plus 1% commission on net sales of her department. During April, the department sold $20,000.00 with $350.00 returns.

$20,000	gross or total sales
– 350	returns
$19,650	net sales

$19,650	net sales
× 0.01	commission rate
$196.50	commission

$980.00	base salary per month
+ 196.50	commission
$1,176.50	total pay for April

Checking for Understanding: Salary Plus Commission

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. John receives a salary of $700.00 per month. He is paid on a semimonthly plan with a 3% commission of net sales. During the first two weeks of May, his net sales were $2,100.00. During the last two weeks, he sold $2,400.00. What was his gross pay for the first half of May? ____

$700 / 2 = ____________ semimonthly salary

$ _________ net sales for the first two weeks × commission rate of 3% = __________ commission for first two weeks

$ semimonthly salary
+____ commission for first two weeks
$ total or gross pay for first two weeks

Checking for Understanding: Quota to Be Met

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve this problem. Dora Cutter's quota at Evermire's Department Store is $2,000.00 per month. Dora receives a salary of $920.00 per month with a 1% bonus on all sales over her quota. During March, Dora sold $6,000.00. What was Dora's total pay for the month of March? ________________

$	net sales
– ______	quota
$	commissioned sales for March
× ______	commission rate
$	bonus or commission
+ ______	base salary
$	total or gross pay for March

Straight Commission

Straight commission means the employee receives a percentage of their net sales only. Because so many businesses' sales fluctuate dramatically with the seasons, this method of compensation offers less security to the employee. But the commission rate is greater—usually 5-15%.

Example: Marvin Perry, a salesperson for Eco Motors, works on straight commission of 5%. During September, Marvin's net sales totaled $150,000.00.

$150,000	net sales
× 0.05	commission rate
$7,500.00	commission for September = total or gross pay

Checking for Understanding: Straight Commission

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve this problem. Nora Kelly is a salesperson at Juneuv Jewelry. Nora works on a straight commission rate of 6%. During the month of December, Nora sold $18,000.00. One customer returned a $450.00 ring, and another returned a $25.00 piece of silver flatware. What was Nora's gross pay for the month of December? ______________

$18,000.00	gross sales
– ______	returned merchandise
$	net sales
× ______	commission rate
$	straight commission (total or gross pay)

Draw

Salespeople who work for straight commission are often given the opportunity to draw against future commissions. To **draw** means that the employee borrows against future commission (when business is traditionally good) to help stabilize their income during "slack times," or the seasons during which business is slow.

Example: During June, business at Eco Motors is very slow. Marvin's net sales were $17,000.00, with a monthly commission of $850.00 ($17,000 × 0.05 = $850.00). Since Marvin's past sales record was good and showed high sales during the "busy season," he was allowed to draw $1,000.00 against future commissions that he was expected to earn so that he could pay his monthly expenses during this "slack time," or slow season. The amount of the draw—or the amount he borrowed—would be subtracted from commissions earned at a later date.

Checking for Understanding: Draw

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve this problem. Joe Thompson is a salesperson for a large automobile dealership. He earns 15 1/2% straight commission, plus a draw of $500.00 based on $13,000.00 monthly sales. During May, Joe sold $12,000.00. Since Joe is allowed a $500.00 draw if his sales fall below $13,000.00, is he allowed to draw during this month? ___________

What will be his total or gross pay for the month? ___________

Graduated Commission

Still another method of payment is graduated commission. **Graduated commission** pays different commission rates as the net sales increase. This method is an added incentive to increase sales.

Example: Ellie Golder is paid on commission according to the following graduated commission rate.

5% on the first $500 of net sales
10% on the second $500 of net sales
12% on all net sales over $1,000

Ellie's net sales during the week were $2,500; therefore,

5% × $500 = $25.00
10% × $500 = $50.00
12% × $1,500 = $180.00
$255.00 total commissions

Checking for Understanding: Graduated Commission

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve this problem. Max Headly receives a graduated commission in addition to his $500.00 base salary. He receives 5% on the first $500.00, 10% on the second $500.00, 15% on the third $500.00, and 20% on all sales over $1,500.00. His sales for the month of October were $2,300.00. What was Max's gross or total pay? ___________

Base salary is
First $500 × 0.05 is
Second $500 × 0.10 is
Third $500 × 0.15 is
and $800 × 0.20 is
Gross pay is

Technical Learning Concepts

Note: Unless directed otherwise, do not write in this space. Define or explain each of the following terms.

commission
draw
graduated commission
monthly salary
net sales
quota
quota bonus plan
salary
salary plus
semimonthly salary

ASSIGNMENT 19

Incentives and Payroll Deductions

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms and give examples of each:* exemptions, payroll deductions, pay incentives, P.M.'s, bonuses, *and* fringe benefits;
2. *give examples of voluntary and involuntary deductions and explain the differences;*
3. *calculate FICA and withholding taxes using information provided and given an amount of earnings and exemptions;*
4. *calculate deductions and incentives if given the amount of pay and the amount and type of deductions and/or incentives; and*
5. *compute net pay with the gross pay, incentives, and deductions given.*

The need for accuracy in arithmetic is very evident in the payroll department of any business. The need for accuracy in calculating hours and rates of pay seems obvious. Equally important is accuracy in calculating deductions and pay incentives to ensure that each employee receives the exact amount of earnings due.

Pay Incentives

Pay incentives include money given to encourage greater or specific effort. They include bonuses and P.M.'s. In addition, fringe benefits are used to reward employees.

Bonuses

Bonuses are very similar to, but not to be confused with, commissions (discussed in Assignment 18). While commissions are a percentage of sales, **bonuses** are a set amount of extra pay offered for additional sales or specific performance. Bonuses are often offered for sales above a quota (or expected amount), for selling selected merchandise, or for excelling in the overall sales of the company.

Example: Sparco offers a bonus of $1,000.00 for the salesperson who has the greatest net sales (exceeding $50,000.00) in the month of March.

Example: Winnet's offers a bonus (in addition to commissions) of $300.00 to any salesperson who exceeds the monthly quota for April by 10% or more.

Checking for Understanding: Bonuses

Note: Do not write in this space unless directed by your teacher.

Solve the following problem. Janette Blatik receives 2% on all net sales above her quota of $22,000.00. Would this percentage be a commission or a bonus? ____________

Tony Gonzales's sales were $700.00 over his quota. He sold more duplicating machines than any other salesperson at Images, for which he received $500.00. Did Tony receive a bonus or a commission? ____________ How much? ____________________

Premium Money (P.M.'s)

Premium money is extra money paid as an incentive (something to increase effort or willingness) for the sale of certain items of merchandise. P.M.'s are often paid for working unusual or hard-to-staff hours, also. Premium money is also sometimes known as "premium," "pin money," or "push money."

Example: Sandy works at Fresh Fruit Produce during the afternoon and evening hours. Sandy receives an additional $0.25/hour for each hour she works after 6:00 P.M. or for any hours worked on Sunday. This additional $0.25/hour is a P.M. to encourage Sandy to be more willing to work hard-to-staff hours. Fresh Fruit also offers a P.M. of $1.00 for any employee who sells one of the gift fruit baskets that the company is advertising in the local newspaper this month.

Checking for Understanding: Premium Money

Note: Do not write in this space unless directed by your teacher.

Solve the following problem. Donald is paid an hourly rate of $4.00/hour. He receives a P.M. of $0.35 for each hour he works after 6:00 P.M. and any hours worked on Sunday. This week Donald worked from 4-8 P.M. on Monday, 3-7 P.M. on Wednesday, 2-6 P.M. on Friday, and from 8-11 A.M. on Sunday. What was Donald's gross pay?

	Regular hours	P.M. hours	Gross daily pay
Monday	________@ $4.00	________@ $4.35	____________________
Wednesday	________@ $4.00	________@ $4.35	____________________
Friday	________@ $4.00	________@ $4.35	____________________
Sunday	________@ $4.00	________@ $4.35	____________________

Gross pay for the week ____________________

Fringe Benefits

Fringe benefits are benefits an employee may receive in addition to his or her regular earnings. These benefits are the compensations that an employee receives—other than actual money. The worth of these benefits is not figured as part of the wage or salary, but they are a factor when the overall worth of a particular job is considered.

Examples: Paid vacations, sick leave, paid holidays, insurance premiums, employee discounts, cafeteria services, health spas, and furnished uniforms are some common examples of fringe benefits. None of these benefits increase the employee's pay scale, but each of these benefits lowers the employee's overall expenses of living day-to-day.

Checking for Understanding: Fringe Benefits

Note: Do not write in this space unless directed by your teacher.

Solve the following problem. The Kinning Company pays their part-time cashiers $5.50 per hour. The Basel Shop pays their part-time cashiers $5.25 per hour and furnishes all part-timers working 20 hours a week or more with health insurance and one week of paid vacation based on an average week's pay. Which store would you rather work for? ______________________________Why? ____

Payroll Deductions

A **payroll deduction** is any thing for which money is subtracted from your gross pay. Payroll deductions fall into two major categories—voluntary deductions and involuntary or mandatory deductions.

Voluntary deductions are those deductions that an employee asks to be taken out of his earnings. For each voluntary deduction withheld from an employee's income, there must be a signature card bearing the employee's signature and stating the amount of the deduction and the purpose. Charitable contributions, employee association dues, payroll savings plans, and insurance policy premiums are among the most common voluntary deductions.

Example: Dan may wish to contribute to the United Way $1.00 per week for 10 weeks. Additionally, Dan may want to participate in the payroll savings plan where he works. Dan completes and signs one signature card stating that the payroll division may deduct $1.00 per week for 14 weeks to be sent to the United Way Fund and a second signature card asking that $5.00 per week be deducted from his check and placed in a savings account. Therefore, each week for 14 weeks Dan's voluntary deductions will total $6.00.

Involuntary deductions are those deductions from your pay about which you have no choice. There are many federal, state, and local laws that affect the number and amount of deductions taken from your pay before you receive it.

Employers are required by federal law to withhold deductions from employee's earnings for federal withholding tax and F.I.C.A. tax. Employees have no choice about the deduction of these two taxes, so they are known as involuntary deductions.

Some states have a state income tax and some require that unemployment tax be deducted. These taxes would be considered involuntary deductions, also.

Withholding tax is actually **income tax**, based on what you earn and other factors. It is actually withheld from paychecks. At the end of each year, employees have to file income tax returns to determine what their actual income tax should be. The amount of tax withheld depends on three things—income earned, the filing status of the person, and the number of exemptions claimed.

1. The **income earned** for the period is one factor. In general, the higher the income, the greater the tax.
2. The **filing status** of the person being paid is important. The amount withheld can vary according to whether the the person is single or married—and whether he or she will be filing the tax return at the end of the year as a single person, a married person filing a separate return, or a married person filing a joint return. When married employees intend to file a **joint return,** this means both people in a married couple will combine their incomes and file one return for both incomes. If a person indicates that a **single-head-of-household** return will be filed, this means that this single person is the wage earner for a household where other people live and that this wage earner is responsible for providing more than one-half the living expenses of the people living within that household. It is important for each employee to pick the filing status which is appropriate and will save the most money.

3. The number of **exemptions** to which the taxpayer is entitled has a significant effect on the amount of tax withheld. Exemptions can include the taxpayer, a spouse, and dependents. The greater the number of exemptions deserved, the less the tax that will be withheld and paid.

Employers can actually use several methods to determine how much tax to withhold from a paycheck. Figure 1 shows a portion of a two-wage bracket table from *Circular E, Employer's Tax Guide*, published by the Internal Revenue Service. Such tables change from year to year, and employers will always use the most recent. For purposes of learning how to use a wage bracket table, this one will do.

First, the circular has more than 20 pages of such tables. They differ by amounts of wages covered, payroll period, and filing status. So the first step would be to select the appropriate table. Figure 1 shows portions of tables for single persons and for married persons. They are for weekly payroll periods. Only columns for up to three withholding allowances are shown, to save space. The actual tables go up to 10 allowances.

The next step is to locate the wage amount covered in the bracketed "at least" and "but less than" columns at the left. For example, wages of $211.00 a week would be on the line for "at least $210.00 but not more than $220.00."

Next, the person doing the payroll would check the employee's records to see how many exemptions are being claimed. On this table, exemptions are listed as "withholding allowances claimed." For example, a person might claim only one exemption.

To find the actual amount, the next step is to move along the line for $210.00-$220.00 to where it intersects the column for one withholding allowance. The amount found on this table is $23.00.

F.I.C.A. is an abbreviation used on most paycheck stubs to identify the amount withheld under the **Federal Insurance Contributions Act**. F.I.C.A. refers to Social Security taxes that are paid by the employee. The employee's 7.65% contribution (deduction) is matched by the employer before it is sent to the government. The U.S. Congress sets the percentage rates and earnings limit for F.I.C.A. deductions. Both percentage and earnings limit are changed periodically. Under federal regulations for 1990, after any employee earns $51,300.00 in a given year, no more F.I.C.A. tax is deducted during the remainder of that year.

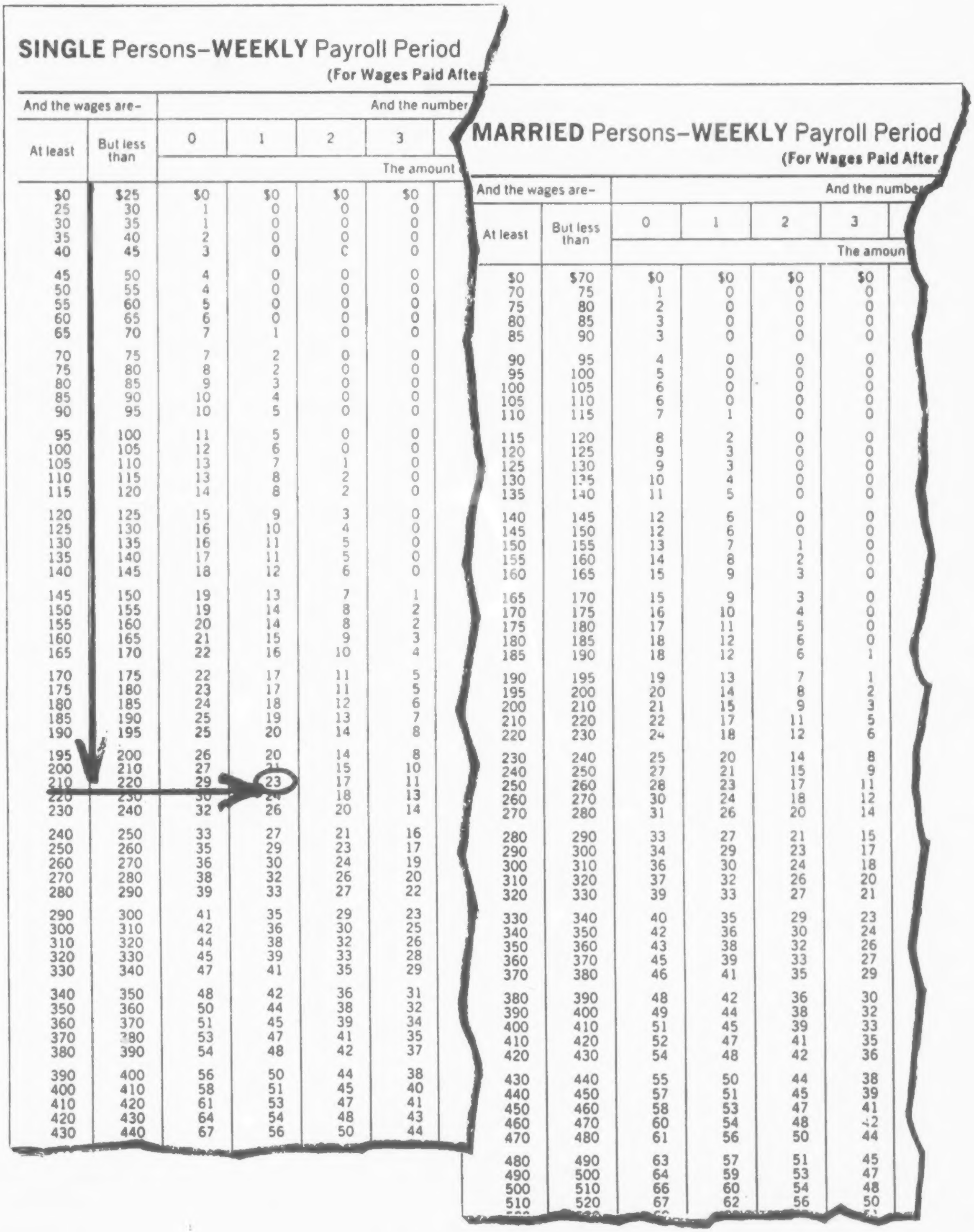
The federal government requires that every working person have a Social Security card. This card has that person's unique Social Security number on it. The government sets up an account for each person who works, and each working person must contribute to the Social Security fund each month. For most employed persons, Social Security is a form of retirement that the federal government has established to provide an income for people at the end of their work lives, or in the event of early disability. It provides a federally supervised retirement/insurance plan.

Example: When Dan Eddy, a Marketing Education student, was employed at his training station, the payroll division had him fill out a **withholding exemption certificate (W-4)** to indicate to the payroll division the rate at which his pay would be taxed. Dan indicated on this form that he was the only exemption he could claim, and placed the figure "1" in the proper spaces. On the basis of this information, the payroll person determined the income tax that was to be withheld from Dan's check each pay period.

Dan's total pay for the first week of August was $87.00. Tracing downward to "at least $85.00 but less than $90.00," and reading across to the column indicating one withholding allowance, the amount of federal income tax to be withheld for this week proves to be $4.00.

In addition to the withholding tax, 7.65% of his wages had to be withheld for Dan's contribution to F.I.C.A. The person doing the payroll multiplied $87.00 by 0.0765. That indicated a withholding for Social Security of $6.66. The combined withholding and F.I.C.A. taxes withheld was $10.66.

At the end of the calendar year, the company issued Dan a **W-2 Form**, which showed his gross income for the year, the amount of F.I.C.A. contributions paid, and the amount of federal income (withholding) tax withheld from his income. Dan will use Copy B of this form to file with



SINGLE Persons–**WEEKLY** Payroll Period

(For Wages Paid Afte

And the wages are–		And the number			
At least	But less than	0	1	2	3
		The amount			
$0	$25	$0	$0	$0	$0
25	30	1	0	0	0
30	35	1	0	0	0
35	40	2	0	0	0
40	45	3	0	C	0
45	50	4	0	0	0
50	55	4	0	0	0
55	60	5	0	0	0
60	65	6	0	0	0
65	70	7	1	0	0
70	75	7	2	0	0
75	80	8	2	0	0
80	85	9	3	0	0
85	90	10	4	0	0
90	95	10	5	0	0
95	100	11	5	0	0
100	105	12	6	0	0
105	110	13	7	1	0
110	115	13	8	2	0
115	120	14	8	2	0
120	125	15	9	3	0
125	130	16	10	4	0
130	135	16	11	5	0
135	140	17	11	5	0
140	145	18	12	6	0
145	150	19	13	7	1
150	155	19	14	8	2
155	160	20	14	8	2
160	165	21	15	9	3
165	170	22	16	10	4
170	175	22	17	11	5
175	180	23	17	11	5
180	185	24	18	12	6
185	190	25	19	13	7
190	195	25	20	14	8
195	200	26	20	14	8
200	210	27	21	15	10
210	220	29	23	17	11
220	230	30	24	18	13
230	240	32	26	20	14
240	250	33	27	21	16
250	260	35	29	23	17
260	270	36	30	24	19
270	280	38	32	26	20
280	290	39	33	27	22
290	300	41	35	29	23
300	310	42	36	30	25
310	320	44	38	32	26
320	330	45	39	33	28
330	340	47	41	35	29
340	350	48	42	36	31
350	360	50	44	38	32
360	370	51	45	39	34
370	380	53	47	41	35
380	390	54	48	42	37
390	400	56	50	44	38
400	410	58	51	45	40
410	420	61	53	47	41
420	430	64	54	48	43
430	440	67	56	50	44

MARRIED Persons–**WEEKLY** Payroll Period

(For Wages Paid After

And the wages are–		And the numbe			
At least	But less than	0	1	2	3
		The amoun			
$0	$70	$0	$0	$0	$0
70	75	1	0	0	0
75	80	2	0	0	0
80	85	3	0	0	0
85	90	3	0	0	0
90	95	4	0	0	0
95	100	5	0	0	0
100	105	6	0	0	0
105	110	6	0	0	0
110	115	7	1	0	0
115	120	8	2	0	0
120	125	9	3	0	0
125	130	9	3	0	0
130	135	10	4	0	0
135	140	11	5	0	0
140	145	12	6	0	0
145	150	12	6	0	0
150	155	13	7	1	0
155	160	14	8	2	0
160	165	15	9	3	0
165	170	15	9	3	0
170	175	16	10	4	0
175	180	17	11	5	0
180	185	18	12	6	0
185	190	18	12	6	1
190	195	19	13	7	1
195	200	20	14	8	2
200	210	21	15	9	3
210	220	22	17	11	5
220	230	24	18	12	6
230	240	25	20	14	8
240	250	27	21	15	9
250	260	28	23	17	11
260	270	30	24	18	12
270	280	31	26	20	14
280	290	33	27	21	15
290	300	34	29	23	17
300	310	36	30	24	18
310	320	37	32	26	20
320	330	39	33	27	21
330	340	40	35	29	23
340	350	42	36	30	24
350	360	43	38	32	26
360	370	45	39	33	27
370	380	46	41	35	29
380	390	48	42	36	30
390	400	49	44	38	32
400	410	51	45	39	33
410	420	52	47	41	35
420	430	54	48	42	36
430	440	55	50	44	38
440	450	57	51	45	39
450	460	58	53	47	41
460	470	60	54	48	42
470	480	61	56	50	44
480	490	63	57	51	45
490	500	64	59	53	47
500	510	66	60	54	48
510	520	67	62	56	50

Fig. 1. Two wage bracket tables

his Federal Income Tax Form 1040 EZ, or Form 1040. Dan will keep Copy C for his own personal files.

Checking for Understanding: Deductions

Note: Do not write in this space unless directed by your teacher.

Solve the following problem. Using the two examples on voluntary and involuntary deductions, figure what Dan's net pay (take-home pay) would be for the week in question.

____

Payroll Records

The payroll ledger records these things: employees' names, filing status, amount of time worked, hourly pay rate or salary, taxes withheld, and voluntary deductions withheld. From these figures, the gross pay and net pay are computed.

Example: In the ledger example below, the total number of hours worked is computed by adding the hours worked each day together. The number of hours is multiplied by the hourly rate to calculate the gross pay earned. Next, the amount to be withheld for income tax is found using the wage bracket table as described earlier. The amount to be withheld for Social Security is also found. The involuntary deductions and voluntary deductions are added together to find total deductions. Then, the total deductions are subtracted from the gross pay to find the net (take-home) pay. D. Eddy is single and is claiming one exemption. (To save space, this example omits columns that deal with overtime.)

Employee	Status Exempt	M T W T F S	Total Hours	Hourly Rate	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
Eddy, D.	S-1	5 7 6 0 10 3	31	4.20	130.20	9.96	11.00	2.00	22.96	107.24

Checking for Understanding: Wage Computation

Note: Do not write in this space unless directed by your teacher.

You may copy the ledger sheet or redraw it. Complete the payroll ledger sheet below, and compute the wages for employees listed. D. James is single, and E. Josha is married and filing jointly. Each is claiming only one exemption.

Employee	Status Exempt	M T W T F S	Total Hours	Hourly Rate	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
James, D.	S-1	5 3 6 4 10 3		4.25				1.00		
Josha, E.	M-1	8 0 9 9 8 3		6.95				19.80		

Technical Learning Concepts

Define or explain the following terms.

bonus
filing status
F.I.C.A.
fringe benefits
involuntary deductions
P.M.'s (premium money)
payroll deductions
payroll record
pay incentives
voluntary deductions
withholding tax
exemptions

ASSIGNMENT 20

Determining Productivity

Objectives: When this assignment has been completed, you should be able to—

1. *discuss the terms* production, productive, *and* productivity;
2. *understand and apply methods for measuring productivity of personnel who sell; and*
3. *understand and apply methods for measuring productivity of personnel who do not sell—nonselling personnel.*

The concept of productivity has occupied the minds of marketers and other businesspersons for many years now. But in recent years it has received more emphasis, as both international competition and competition between businesses in this country have grown. Managers and supervisors have accurate mathematical ways of measuring productivity, and they are constantly seeking new methods for increasing productivity.

It's necessary first to clarify terms, because production is sometimes misunderstood, and productivity has a precise definition that makes it measurable.

Production can be understood too narrowly. Sometimes people think of production as referring only to an activity that leads to a physical product, such as an automobile. It is better to consider production as the steps or tasks that lead to specific results or products of all kinds. What is done by a salesperson can produce sales—and those sales are that person's products. What a stockperson does can prepare merchandise for sale. The product of certain stockroom tasks may be 100 items marked with price tags. Advertising personnel get people into the store and ready to buy. The product—or result—of advertising can be something like 500 people trying to buy a new dress, or a high percentage of people reading a particular advertisement. In all the cases above, employees are in engaged in production which leads to a product.

Naturally, a supervisor or manager wants all the employees to be **productive**, which means that they produce results efficiently.

The term **productivity** has a more exact meaning. It can be defined as the goods or services produced per unit of capital or labor. A store might expect that each $1.00 spent on labor will result in 30 cases being processed in the stockroom. The same store may decide that each $1.00 spent to pay a salesperson should produce $20.00 in sales. The store will prosper to the extent that it is able to control productivity. If $1.00 spent on labor gets only 10 cases processed, then the additional cost will come out of profits. Store owners, managers, and other employees have two reasons for raising productivity—survival and prosperity.

Measuring Productivity of Selling Personnel

The productivity of people who sell is based on their volume of sales and the pay which they receive for those sales. A store can decide that it wants its selling costs to be a certain percentage of its sales. The lower the selling cost as a percentage of sales, the higher the productivity of the employee, department, or store. For example, a 5% selling cost is better than a 7% selling cost.

Stores determine what they are willing to pay employees in terms of selling costs. Simple calculations can be used to determine those costs.

Setting Quotas

What salespersons are paid can be related to sales quotas that have been calculated as a percentage of the sales expected from each employee. If the department plans to have a selling cost of 5%, then a quota of $2,000.00 would be set for an employee who is paid $100.00. A selling base salary of $100.00 per week is 5% of $2,000.00. Quotas can also be calculated for employees working a certain number of hours for a specified amount per hour.

Example: Jill is employed by the Style Mart as a part-time salesperson. She works an average of 28 hours per week and receives wages of $4.00 per hour. Because of the clientele and type of merchandise sold, Jill's department has a selling cost set at 8%. A two-step method can be used to determine how much Jill must sell each week to make her wages.

Step 1 is to determine total pay. In this case, it is done by multiplying hours by rate per hour:

28 hours × $4.00 = $112.00 to be paid to Jill

Step 2 is to divide total pay by the selling cost percent as a decimal:

```
     $1400
0.08/112.00
      8
      32
      32
```

Checking for Understanding: Setting Quotas

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. How much would Bill Blarneystone have to sell in order to justify a total weekly pay of $100.00 if his selling cost is to be 5%? ______________

Comparing Productivity

The actual productivity of two employees can be measured and compared even if there are differences in their gross pay. To do this a supervisor or manager calculates each person's selling cost by dividing net sales into total pay. Selling costs can then be compared to determine the two employees' relative productivity.

Example: Jill decides to accept full-time employment at the Emporium, where she will work 40 hours each week and receive a weekly salary of $150.00 plus 3% of net sales. Last week she sold $1,936.00 in merchandise and had returns of $67.00. To calculate her selling cost, three steps are followed.

Step 1 is to determine net sales by subtracting returns from total sales:

$1,936	in sales
−67	in returns
$1,869	in net sales

Step 2 is to determine Jill's total pay by adding weekly (base) salary to commission:

$150.00	weekly (base) salary
+ 56.07	in commissions ($1869 × 0.03 rate)
$206.07	in total pay

Step 3 is to divide her total pay by her net sales:

0.11 or 11%
$1,869/ 206.07
1869
1917
1869
48

The 11% selling cost may or may not be within the range allowed at Emporium. In any case, the store may want to compare Jill's costs with those of other employees calculated in the same way.

Checking for Understanding: Comparing Productivity

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve this problem. Suppose that during the same week, part-time employee Susy Hoyt in the same department worked 24 hours at a rate of $4.00 per hour. She had sales of $1,254.00 and returns of $56.00. Use the same three steps to determine her productivity. What is her selling cost? ____________________ Is Susy more productive or less productive than Jill? ________________________

Measuring Productivity of Nonselling Employees

Calculating productivity of nonselling employees uses the same factors as those for selling employees. In either case, the work done in terms of units is compared to the pay required to obtain that work. For selling employees, the work done is stated as a net sales figure in dollars (the units). For nonselling employees, the work done is stated in some other unit, such as the number of garments tagged.

However, the productivity calculation for nonselling employees is done by dividing the units of work done by the amount paid the employee. The result is a number useful for comparison. This is the calculation:

$$\text{units processed per \$1} = \frac{\text{units of work}}{\text{total pay to do work}}$$

In this calculation the resulting productivity number should be higher to indicate higher productivity. It tells how much was achieved for each dollar spent.

Example: Dan is a nonselling employee in a grocery supermarket. Bob Brown works there with Dan, and they are both stockkeepers. Last week Dan processed 4,800 cases of stock, working 40 hours at a rate of $4.00 per hour. Bob processed 4,200 cases in the same week, working 38 hours at the same rate. Here are the calculations needed for a comparison.

For Dan, who earned $160.00:

30 units processed per $1.00
160/4800
480
00

For Bob, who earned $152.00:

27.6 units processed per $1.00
152/4200.0
304
1160
1064
960
912
48

Dan processed 30 units for each $1.00, compared to only 27.6 units by Bob. Dan was the more productive, but both scores might be compared to the averages or expectations of the department.

Checking for Understanding: Calculating Nonselling Productivity

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. Mary unwrapped, price-tagged, and delivered 120 dresses to the Misses department during one 6-hour shift, for which she got $4.00 an hour. How many units did she process for each $1.00? ____________

Betty unwrapped, price-tagged, and delivered 65 dresses to Trends Boutique during her 4 hours on the job, at a rate of $4.00 an hour. How many units did she process for each $1.00?

Which nonselling person was the more productive?____________

ASSIGNMENT 21

Stockturn

Objectives: When this assignment has been completed, you should be able to—

1. *define* average stock, stock turnover (*or* stockturn), *and* capital turnover;
2. *use the simple formula for figuring stock turnover and capital turnover rates;*
3. *compare the effects of margin percentages and stockturns;*
4. *explain the importance of stockturn reports to the retailer;*
5. *determine average stock when given necessary information; and*
6. *find stockturns for particular items when given necessary information for computation.*

Profits are not realized in any business until merchandise that has been purchased for resale is turned back into money. Stock turnover rate is the number of times the merchant's average stock of merchandise is sold and replaced by new merchandise within a specific period of time (usually a year). **Stock turnover** may also be called **stockturn**. In this assignment you will learn about rates related to stockturns, how they are computed, and why they are important.

Stock Turnover

Stock turnover rate (or **stockturn**) is a unit of measurement to determine the rate, or speed, at which stock is converted into money through sales. Stock turnover rate is used in measuring profits, setting prices, deciding when and what to buy, and comparing the performance of one department or store to another.

Think of stock turnover rate as it compares to what is indicated by a speedometer such as the one that measures the rate of speed of an automobile. At any one time, the main dial of the speedometer will tell you how fast you are going. If it says 50 miles per hour and you continue to travel at that rate for two hours, you should go 100 miles. Another instrument on the speedometer dial shows how many miles the automobile was actually driven during a time period. You can check your watch, and the speedometer at certain times. With information from the speedometer and the watch, an automobile driver can determine the distance traveled, the rate of speed at which the distance was traveled, and how much time might be required to travel a given distance in the future. Stock turnover rates indicate to the merchant the amount of merchandise sold in a given period, and the speed or rate at which it is sold. With that information the merchant can estimate when to buy new merchandise, and how much to buy.

Example: You start a business with 20 specific items on hand. When you have sold all 20 of the items, you have turned your stock one time. That is called one stockturn. You then restock by ordering 20 more items. By the end of one year, you have sold all of them, again. You have had a stock turnover rate of 2 for that year because you have sold all of your stock two times within the one-year period. The stock turnover rate is often called the stock turnover, or simply the stockturn—with it understood that you are talking about a mathematical rate.

This simplified example is easy to understand because only one item of merchandise was used and it was completely sold out before it was reordered. The actual calculation of stock turnover is a bit more involved. Most merchandisers deal with many different items of merchandise and seldom wait until an item is completely sold out to reorder. Therefore, a formula is used to compute the stock turnover rate. The formula for computing the stock turnover rate is simple and easy to understand: divide the net sales by the average stock to find turnover.

$$\frac{\text{net sales (units)}}{\text{average stock (units)}} = \text{stock turnover rate (units)}$$

Stock turnover rate can be calculated like any other division problem:

$$\begin{array}{r} \underline{\text{stock turnover rate}} \\ \text{average stock in units/net sales in units} \end{array}$$

Example: If, in your business, your average stock was 7 items and the total sales for the year was 63 items, the stock turnover rate would be 9. Sixty-three divided by seven equals nine (63/7=9).

Stock turnover rate can also be calculated in dollars. Net sales in dollars is divided by average stock at the retail price.

$$\frac{\text{net sales (dollars)}}{\text{average stock (retail price)}} = \text{stock turnover rate}$$

Example: If, in your business, your average stock was $1,505.00 worth of a specific item at retail price and the total sales for the year was $13,545.00, the stock turnover rate would be 9.

$$\begin{array}{r} \underline{9} \\ 1505/13545 \\ \underline{13545} \end{array}$$

Checking for Understanding: Calculating Stock Turnover Rate (Stockturn)

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. In your boat shop you carry a line of life jackets. Your average stock of life jackets during the year was 10. During this same year, you sold 80 life jackets. What was the stockturn rate in units for life jackets that year?______________

Estimating Stock Turnover

By using the stock turnover formula, a merchant may measure the stock turnover rate for a given period—monthly, bimonthly, semiannually, or only once each year—then estimate for a different period. If stock turnover is computed for six months, for example, an estimate can be made for the next six months or for an entire year.

Example: If a merchant studies an average month's sales and finds the stock turnover rate to be 0.4, she can estimate that for six months it will probably be 2.4 (6 × 0.4 = 2.4).

Checking for Understanding: Estimating Stock Turnover

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. If the stock turnover rate on your life jackets was found to be 0.5 for an average month, what could you estimate the stockturn rate for the year to be? ____________

Profits and Stockturn

In addition to the amount of merchandise sold and the speed with which it was sold, the stockturn indicates the amount of profits and the speed at which they were earned. The speed at which stock is being converted into sales (or the stockturn rate) is a direct indicator of the degree of profits being generated. The higher the turnover rate, the more rapidly the merchandise is being sold and the faster profits are being made. In other words, the higher the turnover rate, the greater the profit return on the dollars invested in inventory. The explanation for this is quite simple.

Expenses of doing business are fairly stable during the year. Salaries, rent, supplies, taxes, insurance, utilities, and other expenses will remain rather constant all year. If a store can increase its stockturns by one during the year, then the expenses will not increase proportionately. Thus, profits are substantially increased. Profits are essential to a business if it is to remain "in the black" and have opportunity for growth and expansion.

Example: With an average stock of 20, more profit can be expected from selling 40 items (turnover rate of 2) than from selling 20 (turnover rate of 1).

Checking for Understanding: Profits and Stockturn

Note: Unless directed otherwise by your teacher, do not write in this space.

The stock turnover rate is important in measuring profits in dollars and in setting prices for merchandise. Would you rather have a 40% profit margin with three stockturns a year, or a 25% profit margin with nine stockturns per year? ____________

Example A: If you have a retail value of stock of $1,000.00 with a 40% profit margin and a stockturn rate of 3 per year:

Example B: If you have a retail value of stock of $1,000.00 with a 25% profit margin and a stockturn rate of 9 per year:

Capital Turnover

The stockturn method used thus far measures stock turnover in units of merchandise or dollar amounts at retail price. If a merchant wants to measure the efficiency of his investment dollars in stock or the amount of money he has used to buy stock, he may wish to find how many times his capital (or investment) has turned. To find capital turnover, he would use the stock turnover formula based on cost price (amount the merchandise cost him) rather than retail price (what the merchandise will sell for). The formula used for this method is:

$$\frac{\text{net sales}}{\text{average stock (at cost)}} = \text{capital turnover}$$

The **capital turnover** is the number of times the merchant's capital has been invested in stock then returned and reinvested. This is the measure of the number of times the capital (money) has been used to produce additional profits.

Example: If net sales for the year have been $250,000.00 and the average stock on hand (at cost) is $32,500.00, the capital turnover is 7.69.

```
             7.69
$32500/250000.00
       227500
        225000
        195000
         300000
         292500
           7500
```

Checking for Understanding: Finding Capital Turnover

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. What would the capital turnover be if the average stock at cost was $10,000.00 and the net sales for the year total $100,000.00? ______________

Determining Average Stock

Each of the formulas discussed so far has depended on knowing what the average stock is at a given time. **Average stock** at retail is found by taking the number of inventories, adding their sums together, and dividing by the number of inventories taken.

Example:	Beginning inventory January 1	$22,500.00
	January 31	15,600.00
	February 28	19,200.00
	March 31	22,700.00
		$80,000.00

$80,000.00 ÷ 4 (number of inventories taken) = $20,000.00 average stock

Checking for Understanding: Determining Average Stock

Note: Unless directed otherwise by your teacher, do not write in this space.

Solve the following problem. If beginning inventory on January 1 was $30,000.00, on February 1 was $20,500.00, and on March 1 was $20,000.00, what was the average stock for that period? ____________________

Using Stock Turnover to Select Merchandise

A merchant may also take the results of several stock turnover calculations to help decide what merchandise to buy. The profit realized on each sale can also have an impact, and there may be other factors. In general, specific items may be selling more slowly than the merchant considers necessary to reach a sales or profit goal for the store or department. Stock turnover rates for each item can be calculated, then compared to other items, to the merchant's expectations, and to anticipated profits.

Technical Learning Concepts

Note: Unless directed otherwise by your teacher, do not write in this space.
Define or explain the following terms.

average stock
capital turnover
stock turnover
stock turnover rate
stockturn

ASSIGNMENT 22

Stock-Sales Ratio

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* physical inventory, book inventory, stock-sales ratio, BOM, *and* EOM;
2. *determine book inventory when given appropriate information; and*
3. *calculate stock-sales ratio when given inventory and sales figures.*

A retailer's inventory is his or her single most important asset, and it represents the greatest dollar investment. The profitability of a business's operation depends entirely upon how well the inventory investment is managed. To be able to stay in business and continue to make a profit, a business must have adequate merchandise for sale at all times—and in adequate assortments to keep sales and turnover at the desired rates.

For good reasons, at any one time a store will have more stock on hand than it expects to sell during an upcoming period, such as a month. For a recent December, a store might have needed $3,000.00 worth of gloves in stock in order to sell $1,500.00 worth. Such experience can influence later decisions.

Keeping merchandise in storage, however, is expensive. Many items are perishable or lose their seasonal appeal if they are not sold within a reasonable time. Idle stock is the same as buried cash in your backyard. There is no profit in something that remains unsold. The merchandiser does not want to use all of the money in the purchasing budget at one time either. Money needs to be kept in reserve and available to buy items that sell faster than others or to buy merchandise that might come on the market in between major purchases.

One method of deciding how much merchandise is needed to start a selling period is to determine the stock-sales ratio to use in setting an inventory goal. If the merchant expects to sell $4,000.00 worth of gloves this December, then an inventory of $8,000.00 might be planned. The fact that $3,000.00 in inventory was needed to cover $1,500.00 in sales last December may indicate that that will be a sensible inventory level.

Importance of Knowing the Stock-Sales Ratio

The stock-sales ratio helps balance inventory against sales. A store wants to have adequate stock on hand, but not too much. The value of stock in inventory is an important consideration in measuring and controlling profitability. Every dollar invested in stock should produce its value plus the expenses and net profit it should earn. If your store operates on a markup of 33 1/3%, that means every dollar in cost produces $1.50 in sales. The key, however, to profits is how often that dollar investment produces $1.50. If it takes longer than your restock period, then your planned profits are eroded by the expenses of operation and overhead.

The ideal situation is to have every dollar in stock (at retail price) produce a retail dollar and be replaced every day. For example, suppose you have 50 pairs of shoes with a retail value of $50.00/pair. Ideally, those 50 pairs would produce $2,500.00 in sales one day, be restocked, and produce another $2,500.00 the next day, and so on and on. Obviously, it is almost impossible for that to happen.

Since the ideal cannot be achieved, the merchant attempts to develop an ideal balance of stock-to-sales that can be achieved. Stores keep records of their stock-to-sales ratios for specific merchandise and departments. Industrywide ratios for merchandise lines and types of stores are available. These can be compared to the actual ratio in the store. To find the existing ratio, the store must know both the inventory and the sales for the period.

Determining the Book Inventory

It is virtually impossible to keep an ongoing **physical inventory**, which is an actual count of merchandise. Instead, a store usually uses the book inventory to compute stock-sales ratios. The **book inventory** is the amount of inventory that bookkeeping records say the store should have.

To compute book inventory, the amount of the beginning-of-month (**BOM**) inventory that is shown on store records is added to the amount that records show the store has received since the beginning of the month. Then the sales figure shown on the records is subtracted from the first total to get the end-of-month (**EOM**) figure—the amount that should be in inventory at closing time on the last day of the month. This is also the BOM figure for the following month.

Example: Bookkeeping records at Erskin's show that there should have been $2,000.00 worth of socks on hand (in inventory) to begin business (BOM) on the first day of October. Erskin's received $6,000.00 worth of socks during October. Records show that $6,250.00 worth of socks were sold during the month.

$2,000	in socks BOM	$8,000	worth of socks (total inventory)
+ 6,000	in socks received	– 6,250	worth of socks sold
$8,000	worth of socks total	$1,750	worth of socks at end of month (EOM)

The EOM figure for the last day of October is also the BOM inventory for the first day in November.

Checking for Understanding: Determining the Book Inventory

Note: Do not write in this space unless directed otherwise by your teacher.

Solve this problem. Bookkeeping records indicate Our Store should have had $6,000.00 worth of widgets on hand at the beginning of January. During the month, widgets worth $4,000.00 more were received. Sales of widgets totaled $6,000.00 in January. What is the retail value of widgets Our Store should have on hand at the end of January? ____________________

Calculating the Stock-Sales Ratio

The beginning-of-month BOM inventory is generally used to determine **stock-sales ratio**. The ratio is computed by dividing the sales into the inventory. Calculating this ratio is basically the reverse of calculating stock turnover rate. It differs also in that the inventory figure is for a specific day, rather than an average for a period.

This is the **stock-sales ratio** equation:

$$\frac{\text{inventory or stock on hand (retail price)}}{\text{sales}} = \textbf{stock-sales ratio}$$

Example: If stock inventory at the beginning of June should have been $40,000.00 and the sales for that month totaled $35,000.00, the stock-sales ratio for January would be 1.14.

$$\frac{40{,}000}{35{,}000} = 1.14 \qquad \text{or} \qquad \begin{array}{r} \overline{1.14} \\ 35000/\,40000.00 \\ \underline{35000} \\ 50000 \\ \underline{35000} \\ 150000 \end{array}$$

Checking for Understanding: Finding a Stock-Sales Ratio

The inventory at the beginning of February was $75,000.00 (retail value). Sales for February were $62,000.00. What is the stock-sales ratio for February? ____________

Using Stock-Sales Ratios

If you know a practical or desirable stock-to-sales ratio, you can determine how much stock should be on hand by using it and the planned sales total. The basic equation above is modified in this way:

Stock-to-sales ratio × planned sales = inventory or stock that should be on hand

Example: The stock-to-sales ratio for the bicycle store was 2. The ratio of 2 can be multiplied by planned sales of $4,000.00 to get an $8,000.00 inventory.

Checking for Understanding: Using a Stock-Sales Ratio

The owner of a men's apparel store knows that a stock-to-sales ratio of 1.5 usually works for one class of garment. What would be the inventory required if sales of $12,000.00 are anticipated? ______________________

Technical Learning Concepts

Note: Do not write in this space unless otherwise directed by your teacher.
Define or explain the following terms.

BOM
book inventory
EOM
physical inventory
stock-sales ratio

ASSIGNMENT 23

Open-to-Buy

Objectives: When this assignment has been completed, you should be able to—

1. *define* open-to-buy *and* planned purchases;
2. *explain the importance of open-to-buy to buyers;*
3. *compute the amount of planned purchases when given BOM inventory, planned sales, and anticipated EOM inventory; and*
4. *calculate the amount of open-to-buy when given BOM inventory, planned sales, anticipated EOM inventory, and amount of merchandise ordered during the reporting period.*

If a merchandiser spends the entire budget too soon, she cannot take advantage of good buying opportunities that arise later in the period. Most buyers operate on a six-month merchandise buying plan. This plan allows a certain amount in the budget for planned purchases during that six-month period. Keeping part of that budget in reserve for unexpected or delayed buying opportunities offers flexibility to purchase the assortment and stock levels needed to attract customers and meet the buying needs of those customers. At any one time the buyer has to know how much money is available for further buying—or how much the open-to-buy figure is.

The first step in determining the OTB figure is to set planned purchases for the selling period and for each month. Then at any particular date in the period it is possible to determine how much money is still available for purchasing if that plan is followed. Open-to-buy is determined by subtracting merchandise on order or received during the period from the planned purchases for the period.

planned purchases
– merchandise on order
= open-to-buy

Planned Purchases

The first step in calculating what has to be bought—the planned purchases—is to set a goal for the amount of sales projected or planned for the reporting period. (The period used is usually a month.) Next, determine the ending inventory that you expect to have at the end of that period. Then, determine the dollar value of reductions—markdowns, employee discounts, and shrinkage. Next, add sales, ending inventory, and reductions to get the total merchandise needed. Finally, subtract the amount of inventory that you began with (already purchased earlier) to determine the planned purchases for the period.

Example: A buyer estimates $50,000.00 in sales during a period of one month. At the beginning of the period, $70,000.00 worth of merchandise was on hand—the BOM inventory. The buyer would like to have $75,000.00 worth of merchandise on hand at the end of the period. The buyer expects reductions of $2,500.00. So, the buyer needs to have available $127,500.00 worth of merchandise. The buyer already has $70,000.00 on hand at the beginning of the period, so this amount is already purchased. The buyer can subtract it from what is needed. What is left is what needs to be purchased during the period.

Here are the steps that use that data:

Step 1	Set a sales goal	$50,000	
Step 2	Add the anticipated ending inventory	+ 75,000	
	and the reductions	+ 2,500	
	To determine total merchandise needed	$127,500	
Step 3	Subtract the beginning inventory	− 70,000	
	To determine planned purchases	$57,500	for the period

At this point—the beginning of the buying plan period—the entire amount ($57,500.00) is open-to-buy, because it is money set aside to buy stock and has not been spent. As time passes in the period and purchases are made, each purchase must be subtracted from the total. Each time this is done, the money left in the budget (the remainder) is considered open-to-buy because it is money left over from the original budget that was made available for purchases. For example, if $5,000.00 has already been spent, then $57,500.00 minus $5,000.00 leaves $52,500.00 still available for purchases.

Checking for Understanding: Determining Planned Purchases

Note: Do not write in this space unless otherwise directed by your teacher.

Solve the following problem. A department in an apparel store expects to sell $20,000.00 during one month. At the end of the month, the buyer wants to have $40,000.00 in the ending inventory. Expected reductions are $3,000.00. The beginning inventory is $45,000.00. What should planned purchases be? ____________________

Determining Open-to-Buy

A merchandise plan has a specific amount of money budgeted to buy stock for a certain period—usually a six-month period. Since most merchandise must be shipped, time is required to obtain delivery. Merchandise is usually ordered well in advance to ensure that it will be in stock during the early part of the selling period. The amount remaining unordered is called **open-to-buy** (or OTB). As the period goes on, the OTB changes, depending on what the buyer purchases.

Think of the purchase budget as being a big water tank. Each time a portion of water is removed from the tank, the reserve of water left in the tank is less. The water reserve left in the tank is like the available money left in the purchase budget. Open-to-buy is the amount of money a buyer has in reserve (left to spend) at any point during the buying period.

Basically, open-to-buy is determined by subtracting the value of the merchandise already received or on order from the total planned purchases.

Example: On the first of April in the buying period the department has already received $30,000.00 and has $3,000.00 worth of merchandise on order. Planned purchases for the six-month period total $50,000.00. This is what the calculation looks like:

$50,000	total planned purchases for the six-month period
− 33,000	merchandise received during period and on order on a certain date*
$17,000	open-to-buy (OTB) as of that date

Checking for Understanding: Open-to-Buy

Note: Do not write in this space unless directed otherwise by your teacher.
Solve the following problem. What is the open-to-buy April 1 if planned purchases are $150,000.00 and the merchandise already received or on order on that date totals $75,000.00? ________________________________

Summary: The Entire OTB Procedure

The procedure for the entire process has these simple calculations:

planned sales
+ planned ending inventory
+ reductions
inventory needed to do business for the period

and

inventory needed to do business for the period
– beginning inventory (merchandise on hand)
planned purchases

and

planned purchases
– merchandise received during period and on order
open-to-buy

Checking for Understanding: The OTB Procedure

Note: Do not write in this space unless directed otherwise by your teacher.
Solve the following problem. Annette's boutique plans to sell $125,000.00 in the period from July-December. The buyer hopes to have $30,000.00 ending inventory to start the next period. Reductions are $2,000.00. The beginning inventory on July 1 was $50,000.00. On July 15th another $5,000.00 worth of merchandise had been received and $20,000.00 more was on order. At this point, what is the open-to-buy for the period?
____

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher.
Define or explain the following terms.

open-to-buy
planned purchases

ASSIGNMENT 24

The Merchandise Plan

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* marketing mix, merchandise plan, the 4-5-4 calendar, assortment planning, sales analysis, inventory analysis, reductions, markdowns, shrinkage, primary research, secondary research, *and* markup;
2. *compute planned sales per month; planned dollar amounts of reductions by month; planned beginning-of-month inventories based on stock-sales ratios; and planned purchases by month; and*
3. *complete the basic calculations used for a six-month merchandise plan, given the appropriate information from previous years and given the projected percentages for the period being planned.*

The **marketing mix** is a careful balance of the product or service being offered for sale, the price at which it is being offered, the place where it will be sold, and the promotional activity that will make customers aware. The **merchandise plan** deals specifically with the product, price, and place factors of the mix. Many decisions have to be made to perfect the marketing mix for a given target market.

Management does not make decisions without first laying some careful plans and preparing budgets that help guide operations during the year. Since a student employee is not likely to see or plan a budget for a department within a store, most learning will take place through indirect involvement in the plans. Studying a merchandise plan, however, will help your understanding of how your store operates. Additionally, you may learn some useful information that will be of value in planning a personal budget.

The Merchandise Plan

The **merchandise plan**, or selling budget, is an expense budgeting plan that is made to cover a specific period of time. A merchandise plan is something like a map that you would follow to ensure your not getting lost along the way when traveling. It aids the buyer in deciding how much to spend at any one time, as well as keeps track of how well actual performance compares to planned performance. Usually it covers a six-month period.

Many companies use the **4-5-4 calendar** to determine when to start and end a planning period. The 4-5-4 calendar establishes weeks and months so that each month begins with a Sunday and ends with a Saturday. Each quarter has 13 full weeks. The major advantage of this calendar is that each year is the same, and this makes for more accurate comparisons in planning by period from one year to the next. The calendar usually begins late in January or early in February, to come out right. It is also called the **retail calendar.**

The primary questions to be answered when using a merchandise plan are (1) how much money should be spent? and (2) what should be bought with this money? After those major decisions are made, the money to be spent must be broken down in the categories of spending.

This activity is known as **assortment planning**, or making decisions about the array of merchandise to be bought.

Overview of a Merchandise Plan

The merchandise plan is an example of how mathematics can produce a tool to be used in planning, communicating between management and other employees, and day-to-day decisions.

A merchandise plan does these things:

1. **It shows the sales goals** for a selling period and for each month in that period. It also shows actual sales for an earlier period, and has space for actual sales for the planned period.
2. **It shows how much stock should be on hand** at the first of each month if sales goals are to be met.
3. **It shows the limits in reductions** set by management for each month. These include markdowns taken, theft, damage, and errors in record keeping.
4. **It indicates purchases required** each month in order to meet sales goals, to make up for reductions, and to maintain the required stock-sales ratio.
5. **It may have space to indicate what margins or markups** have been maintained for each month of the selling period. This has been omitted in the example given because it differs from company to company.

Example: Figure 1 can be studied to learn what information is included, how the data is obtained, and how it is used. For each explanation the data used is in boldface. You will use the same merchandising plan later in checking for understanding and in guided and independent practices. Here are the sections of figure 1, and how the calculations are made:

A. **Sales**—a section for sales goals and results. In this case, management called for a 10% increase in monthly sales over the same months for the previous year. The department manager, Mr. C, was told that sales each month were to be 10% higher than last year's sales. Sales were $40,000.00 last January (line 1), so they are expected to be $44,000.00 this coming January. Line 1 was multiplied by 1.10 to get line 2. In this example, Mr. C can also calculate the other months using the 10% increase figure. This has been done for February only.

B. **Retail stock (BOM)**—a section showing inventory plans and results. The figures in this section are related to stock-sales ratios, as described in Assignment 22. They reflect the need for having a specific amount of stock on hand. For example, Mr. C's department has a recommended stock-sales ratio of 2, as indicated at the top of the form. In order to sell $44,000.00 worth of merchandise this January, it will need to have $88,000.00 worth of stock on hand January 1. Line 5 is the result of multiplying line 2 times the stock-sales ratio of 2.

C. **Reductions, based on % of sales**—a section showing anticipated reductions in stock in dollars. This indicates the expected percentage of inventory that will be affected by theft, record-keeping errors, damage, or taking losses through sales. In this case, management has said that total reductions cannot be higher than 5% of sales for the month (see line 8). If the January reduction limit for Mr. C is 5%, then reductions had better not exceed $2,200.00, which is 5% of $44,000.00 in sales (line 2). Line 8 also shows planned reductions to be $2,200.00.

D. **Purchases in $**—a section showing purchases in dollars for each month. This guides the department manager or buyer in deciding how much merchandise to buy each month. It comes from the other data earlier in the plan, as shown in figure 1. In this example, Mr. C would find the total merchandise using these calculations:

Planned sales are	$44,000	(line 2)
February BOM is	+ 77,000	(line 5)
Reductions total	+ 2,200	(line 8)
Total merchandise needed	$123,200	
On hand January 1	− 88,000	(line 5)
To buy in January	$35,200	(line 11)

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections			January	February	March	Period
	A					
	1.	Last year	**$40,000**	**$35,000**	$25,000	$100,000
SALES	2.	Planned +10%	**$44,000**	**$38,500**		
	3.	Actual				
	B					
RETAIL	4.	Last year	$80,000	$70,000	$50,000	—
STOCK	5.	Planned	**$88,000**	**$77,000**		
(BOM)	6.	Actual				
	C					
REDUC-	7.	Last year 5%	$2,000			
TIONS	8.	Planned 5%	**$2,200**			
% sales	9.	Actual				
	D					
PUR-	10.	Last year	$32,000			
CHASES	11.	Planned	**$35,200**			
IN $	12.	Actual				

Fig. 1. A sample merchandising plan

Checking for Understanding: Developing a Merchandising Plan

Note: Do not write in this space unless directed otherwise by your teacher. You may copy or redraw the form.

In the example above, you saw how calculations were used to finish that part of the merchandising plan dealing with January. Using the information in the plan below, complete the calculations for February last year and February this year. For March, do only those calculations related to finding purchases for February.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	**$40,000**	**$35,000**	$25,000	$100,000
SALES	2. Planned + 10%	**$44,000**	**$38,500**		
	3. Actual				
	B				
RETAIL	4. Last year	$80,000	$70,000	$50,000	—
STOCK	5. Planned	**$88,000**	**$77,000**		
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%	$2,000			
TIONS	8. Planned 5%	**$2,200**			
% sales	9. Actual				
	D				
PUR-	10. Last year	$32,000			
CHASES	11. Planned	**$35,200**			
IN $	12. Actual				

Internal Records

Before a merchandise plan can be made, and before any other questions can be answered, the merchant looks at past records to help with the decisions. A useful tool in making wise purchasing decisions is a **sales analysis,** an analysis of past sales to determine customer needs, wants, and buying habits. Another record that must be reviewed is the **inventory analysis,** or a close look at present stock to determine its adequacy in meeting the needs, wants, and demands expressed in the sales analysis.

In addition to past records, present and future changes must be taken into consideration. Some of these factors are: store growth, changes in prices, the economic health of the community, status of the competition, and the changes in style and/or fashion. Some of these things simply have to be given an educated guess, but a great deal of useful information is available to merchants in the form of secondary research.

Secondary research statistics are those facts that have been gathered by someone other than the person using them at the time. The sources for these statistics include trade journals, chamber of commerce records, government publications, newspapers, and commercial research companies. Some situations may warrant **primary research**, or research conducted by the store or businessperson who will use it.

While research statistics can be very useful, the most relevant information will be found in store records. Generally, the sales analysis is analyzed and broken down by yearly percentages of increase or decrease. Then projections are made for future sales based on those figures, taking into account changes in the business environment. It is important to remember that product is only one part of the marketing mix.

Example: Ging's has been in business for 5 years. Their storewide sales record looks like this:

	Sales	Increase	Percent increase
Year 1	$128,000		
Year 2	$153,600	$25,600	20%
Year 3	$185,856	$32,256	21%
Year 4	$221,168	$35,312	19%
Year 5	$265,402	$44,234	20%
		Average Increase	20%

Determining Dollar Amounts of Reductions

Markdowns, shrinkage, and employee and special discounts represent a decrease in the amount of profits that would be realized if all of the merchandise that was purchased by a store was sold at full price. Collectively, these are known as **reductions**, and the merchant tries to keep the percentage for each one as low as possible.

Seldom, if ever, is every item purchased in a lot of merchandise sold at full price. When a percentage of the original price is subtracted from the selling price (the price is reduced), this is known as a **markdown**. Markdowns are used to get customers into the store, increase sales of certain merchandise, reduce obsolete stock, introduce new lines, and implement many other marketing strategies. Employee discounts, as well as discounts to schools, churches, and charities, must be considered as markdowns and calculated into the planned markdown percentage.

Shrinkage is any loss in inventory due to employee theft, pilferage (shoplifting), or errors in bookkeeping. Any shrinkage suffered by the store erodes the profits. To keep profits up, some shrinkage is planned into the markup, and definite strategies are examined to reduce it.

Employee and special discounts also reduce the retail value of inventory and are treated in the same way as shrinkage and markdowns.

A merchandise plan may have a single category—reductions—or it may be broken down by the subcategories above. Either way, the monthly entries usually show planned reductions as a percentage of the planned net sales. The lower the percentage, the better, because of its impact on store profits.

Calculating Planned Purchases

Assignment 23, "Open-to-Buy," discussed how planned purchases are determined based on sales and inventory figures. To review it:

$50,000	sales goal
125,000	ending inventory
+ 2,250	reductions
$177,250	total merchandise needed
– 110,000	beginning inventory
$67,250	planned purchases

This is one of the last types of calculations done for the merchandise plan, which should have all the information needed for it. If the plan is stated in terms of only BOM beginning inventories, then the February BOM is actually the EOM (ending) inventory for January.

Checking for Understanding: Calculating Planned Purchases

Note: Do not write in this space unless otherwise instructed by the teacher.

Solve the following problem. A merchant plans to sell \$65,000.00 in February. She wants to have \$120,000.00 in inventory at the beginning of March. Planned reductions are \$1,950.00. She will have \$130,000.00 in inventory at the beginning of February. What should her planned purchases be? ________________

Markup

The **markup** is the amount that is added to the cost of merchandise to determine the selling price. A \$2.00 markup might be added to the \$3.00 cost of an item, to arrive at a retail price of \$5.00. The markup plus the cost of merchandise equals the retail price. Assignment 27 discusses markup in detail, especially as it relates to individual item prices. Markup is stated as a percentage of retail price. The \$5.00 retail price of the item above would include a 40% markup of \$2.00. The merchandise cost is 60% of the retail price.

It is important to have markups that will yield enough money to pay expenses and make a profit, yet provide suitable prices that will encourage customers to buy. Every item in a store or department will not have the same markup percentage. Fads and seasonal fashion items will often have a high markup percentage while items that are extremely competitive may have a low markup percentage. The manager has to work toward an average markup involving all sales and costs for a period.

The overall profits of a store depend on achieving an overall planned markup percentage, for a department or for the whole store. This figure relates the net sales for an entire period to the cost of all the merchandise sold during the period. For example:

$$\frac{\text{sales in \$} - \text{cost in \$}}{\text{sales in \$}} = \frac{\$100{,}000 - \$50{,}000}{\$100{,}000} = \frac{\$50{,}000}{\$100{,}000} = 0.50 \text{ or } 50\% \text{ markup}$$

Merchandise plans often indicate what the markup should be for a period if profit goals are to be met. They may also show what the markup percentage was for the same period the previous year, as well as the markdowns for both periods.

Checking for Understanding: Calculating Markup for a Department or Store

Note: Unless otherwise directed, do not write in this space.

Solve this problem. Planned sales for a department for a six-month period are \$50,000.00. The same merchandise will cost \$20,000.00. What is the planned markup for the entire department? ______

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define or explain the following terms.

assortment planning
inventory analysis
4-5-4 calendar
primary research
marketing mix
markdowns
markup
merchandise plan
sales analysis
secondary research
shrinkage
employee and special discounts

ASSIGNMENT 25

Purchase Orders

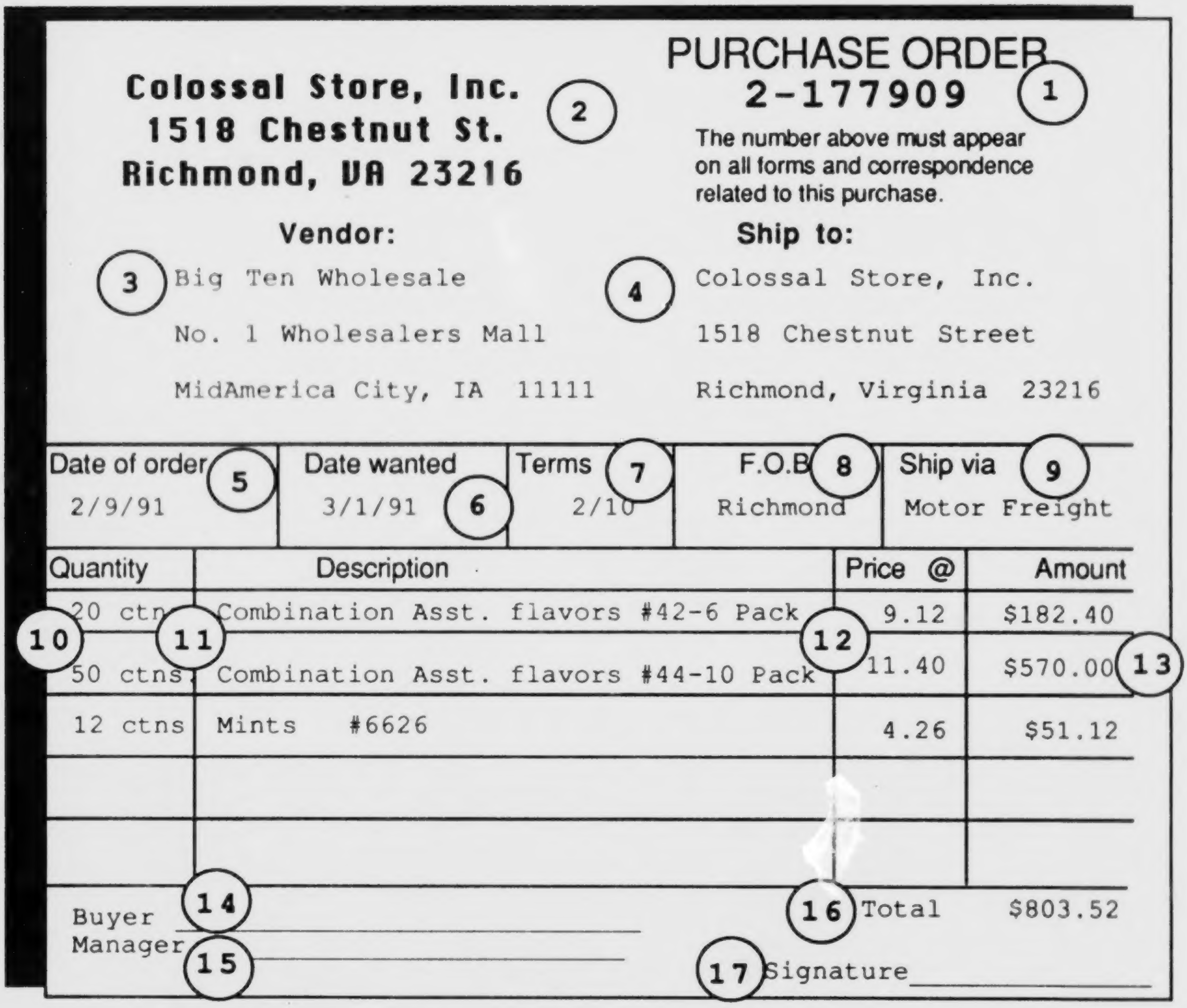
Objectives: When this assignment has been completed, you should be able to—

1. *define the term* purchase order;
2. *explain the purpose of a purchase order;*
3. *identify information found on a purchase order;*
4. *compare a purchase order to an invoice; and*
5. *indicate discrepancies between the purchase order and invoice.*

A great deal of care and caution should be used when writing a purchase order so that mistakes and disagreements between a merchant ordering merchandise and a vendor can be avoided. A purchase order contains much of the same terminology and information that is found on an invoice (see Assignment 15). The invoice, however, is a bill from the supplier to the buyer, while the purchase order is an order to the supplier from the buyer.

The **purchase order** is a written contract sent to a vendor, and its purpose is to order merchandise. The purchase order contains all of the information that is important to the successful completion of the sale. Figure 1 is labeled with numbers in circles to help in understanding what is on a purchase order.

(1) **Purchase order number**—this is a unique number used only for each particular order. Often a **P.O.** number is printed sequentially on each order in a padded series of forms. This helps keep track to determine if any orders are missing.
(2) **Merchant buying the order**—this may be an address, or both an address and a telephone number. It is usually the place to send the bill or correspondence, unless otherwise indicated.
(3) **Vendor's name and address**—this may also include a telephone number.
(4) **Address to ship merchandise to**—this may be different from billing address, and may include a telephone number.
(5) **Date the order was placed**
(6) **Date by which merchandise should be received**
(7) **Terms of payment—**information on when payment is due, and discounts allowable or expected
(8) **F.O.B.**—location—the point to which merchandise will be shipped free
(9) **Ship via**—how merchandise is to be shipped
(10) **Quantity**—number in which each item is to be shipped. Usually, this will indicate a basic ordering unit, such as "ctns" for cartons.
(11) **Description of merchandise**—provided in a few words but with a stock number to clarify what is wanted
(12) **Price @**—the price per unit shipped (in this case price per carton)
(13) **Amount**—the extension obtained by multiplying quantity times the price per unit
(14) **Buyer**—name of person who originated the order
(15) **Manager**—name of person who approved the order
(16) **Total**—how much the merchandise cost
(17) **Signature**—of person responsible for the order



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216

PURCHASE ORDER
2-177909

The number above must appear on all forms and correspondence related to this purchase.

Vendor:

Big Ten Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:

Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms	F.O.B	Ship via
2/9/91	3/1/91	2/10	Richmond	Motor Freight

Quantity	Description	Price @	Amount
20 ctns	Combination Asst. flavors #42-6 Pack	9.12	$182.40
50 ctns	Combination Asst. flavors #44-10 Pack	11.40	$570.00
12 ctns	Mints #6626	4.26	$51.12

Buyer ______________

Manager ______________

Total $803.52

Signature ______________

Fig. 1. Types of information on a purchase order

A copy of the purchase order should be kept as a part of the company's operating records. Accuracy in completing the purchase order is important, because even small mistakes can cause problems. Almost any kind of mistake is important. The wrong "ship to" address means that the merchandise may not get there. A wrong "date wanted" date can cause the merchandise to arrive after it is needed. Asking for the wrong terms can cost money, as can ordering the wrong quantity of an item. The math on a purchase order is simple, but there are still opportunities for mistakes. The wrong amount for an item might be caught—or not.

After the merchandise is shipped, an invoice will be sent from the supplier. The purchase order and invoice should be carefully compared to ensure accuracy in what is received and in the billing. Sometimes the vendor makes a mistake or decides to do something differently. Sometimes the merchant will have made a mistake that the vendor is trying to fix. Comparisons help locate places where correction or further checking is needed. When there are problems, it is important for the various identification numbers, such as purchase order numbers, to be known.

Checking for Understanding: Information on Purchase Orders

Note: Do not write in this space unless otherwise directed by your teacher.
Answer the following questions.

1. What part of the purchase order will help ensure the merchandise gets where it should be going?
2. Which information helps make certain the merchant gets what is being ordered?
3. What information relates to how and when the order is sent?
4. Where is information affecting payment found?

ASSIGNMENT 26

Pricing Structures

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* fixed pricing, keystone pricing, base price, *and* variable pricing;
2. *compute wholesale prices when given keystoned prices;*
3. *explain the impact of base price, fixed pricing, and variable pricing on the buyer; and*
4. *discuss price lining and odd cents pricing.*

Most businesses follow what is known as a **fixed pricing** policy. This means that a one-price-for-everybody policy exists. The price is set, all customers are treated alike, and the price remains the same until an overall policy decision is made to change the price. Customers do not have a choice of the price they will pay for an item.

Some businesses, particularly wholesalers, offer a **variable pricing** structure. Variable pricing means that the price paid by a customer at a given time depends either on negotiations between the seller and buyer or on the base price of the product being sold.

Variable pricing dependent on **base price** affects products that are regulated by an across-the-board pricing structure that is uniform throughout the industry for the product in question—or for a product that is regulated by the government, by international agreement, or by changes in the stock market. A base price is the actual value of a product on the open market, or a national or international value that is set on a product at a given time.

Examples: **Fixed pricing**—Gordon's Junior Shop offers Guess Jeans at $48.00/pair. Every customer who comes into the shop has the choice of buying the jeans—or not buying the jeans—at the $48.00 price. The price of those jeans remains the same at any time during the day and is the same to any customer who comes into the store. Unless it is indicated in the fixed price, it doesn't even matter how many pairs a customer buys. The jeans have a fixed price of $48.00/pair.

Variable pricing—Johnson's Automotive sells one model on display for $10,999.00. However, if a customer offers a trade-in, the salesperson has the flexibility to adjust the price accordingly. In these situations, the salesperson often has the authority to offer a discount if the item is bought within a certain time limit, or in certain quantities.

Checking for Understanding: Fixed Versus Variable Pricing

Note: Do not write in this space unless directed otherwise by your teacher. You can rewrite the statements by adding sentences that tell if the example is for fixed or variable pricing.

1. Juan Vasquez needs five cars for use in his business. The salesperson offers a quantity discount if Juan buys all five cars from his company.
2. If Jane buys the set of china before leaving the store, she will receive a 20% discount.
3. T-shirts at Anders Sporting Goods are priced at $6.95 each. Mr. Turner buys 25 T-shirts for the club. The club pays $173.75 for the shirts.

Base Price

Some products are sold with a variable pricing structure, and that structure is dependent on a base price. Base prices change with federal guidelines, international agreements, or stock market activity. If the base price increases, the merchant usually increases the retail price of the merchandise by the same percentage as the base price increase. This allows merchants carrying items with high-risk factors, high overhead, and long inventory lives to maximize their profits by buying and selling at critical times.

Example: The retail price of gold changes daily based on its price on the international market and regional stock markets. A gold ring might be priced at $650.00 based on $400.00 gold—gold that is valued at $400/oz. on the market. If the base price of gold goes up, the price of the ring will go up accordingly. Let's say that Goldfinger's bought the ring when gold was selling for $350/oz. The ring remains in inventory (and Mr. Goldfinger's investment is tied up) for 13 months. Then the price of gold jumps to $425/oz. The ring would then be sold at a price based on the $425.00 price base. The new price would reflect the gold increase from $400.00 to $425.00. With the base price at $650.00 for the ring, the new price would be $690.63 ($650.00 × 1.0625).

Using a base price in that way is not unethical and it is not "cheating" the customer—it simply allows Mr. Goldfinger to regain the loss that he has suffered by carrying the ring in inventory for such a long period of time (with no return on his investment). Mr. Goldfinger runs the risk of the price of gold dropping within the same period. If he has to sell the ring at a base price of $300.00, he is forced to take a loss, or at least a greatly reduced profit, on his original investment.

Checking for Understanding: Using a Base Price

Note: Do not write in this space unless indicated otherwise by your teacher.

Answer the question. The base price of an item increases 10%. By what percent would the retailer increase his or her retail price? ___________

Keystone Pricing

Many wholesalers of such goods will publish brochures or a catalog to help retailers deal with the price fluctuations. The literature will serve two purposes: (1) as buying information for the retailers and (2) as a selling tool for the retailers. Since the retailers will be showing this printed material to their customers, the prices are often expressed in keystoned terms. When a price is **keystoned**, it means that it is increased by a stated factor. Catalogs may be set up in a way that shows a retail price that can be used to figure the wholesale price to the retailer. The jeweler divides the retail price by the keystone factor.

Examples: The price listed for a bracelet is $1,500.00. The information in the front of the catalog states that all merchandise prices are "double keystoned" and based on the base price of $400/oz. gold. To the retailer buying this bracelet, this means that the retail price of the bracelet printed in the catalog is two times the wholesale price and that this price is good as long as the price of gold does not exceed $400/oz. When the retail customer looks at the bracelet in the catalog, the retail price is printed there for him or her to see and the merchant knows how much the item will cost simply by dividing the retail price by 2.

If the item were "triple keystoned," the jeweler would divide the published price by three to get the cost—and so on.

Checking for Understanding: Keystone Pricing

Note: Do not write in this space unless directed otherwise by your teacher.
Solve the problem. Compute the wholesale price of each of the following items based on the information given.

1. The Jewel Cache takes a special order from Cindy for a birthstone ring. The ring is listed in the Macco catalog for $327.00 retail. The merchandise prices in the catalog are double keystoned. How much will the ring cost the Jewel Cache? ______________
2. The Sofa Box is special ordering a sofa for Mrs. Casterini. The sofa is listed in the catalog at $1,200.00, and the prices are triple keystoned. How much will the Sofa Box pay for the sofa? ______________

Price Lining and Odd Cents Pricing

Competition often forces changes in the price structure. Price lines and pricing policies usually dictate the final selling price of merchandise. Many times even a desired price line has to be lowered because competition is selling the identical item at a lower price.

Price lining is a policy that places merchandise in various price groups based on cost. All merchandise costing within certain limits is marked at the same retail price.

Example: A menswear store may have suits in three price lines: $99.95, $159.95, and $199.95. All suits received in stock will be placed into one of these selling price groups.

Odd cents pricing marks an item to the nearest appointed selling price in a prescribed price line. The policy might state that all items are marked to the nearest 9¢ for each 10¢ of retail price, the nearest 98¢ of each dollar of retail, or even each $50.00 of each $100 retail. Thus, if the selling price of an item figures at $1.46, it would be priced at $1.49. If the price of that item figures at $1.32, it would be priced at $1.29. In the case of the suit price lines mentioned above, a suit with a price figured at $148.00 would be priced at $159.95. Many stores adjust dollars to the nearest $0.95 or $0.99 as a psychological pricing strategy ($1.99 just sounds like less than $2.00).

Example: A lawnmower would be priced at $59.95 rather than $60.00.

Under actual conditions, retail pricing becomes much more involved. While these are merchandising and management problems, you need to understand, as a student, how prices are figured so that the customer can pay a fair, equitable retail price and the store can still make a profit and stay in business.

Checking for Understanding: Following a Pricing Policy

Note: Do not write in this space unless directed otherwise by your teacher.
Figure each of the following prices to the nearest $0.98 of each retail dollar:

__________ $1.86
__________ $10.62

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher.
Define or explain the terms.

base price
fixed pricing
keystoned pricing
odd cents pricing
price lining
variable pricing

ASSIGNMENT 27

Markup

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* markup *or* markon, cost, retail price, *and* overhead;
2. *compute the dollar amount of markup and total retail price when given the cost in dollars and the percentage of markup needed;*
3. *compute the markup when given the retail price and cost; and*
4. *compute the cost when given the retail price and markup.*

The price of merchandise regulates all economic activity. The rate at which goods and services are produced and distributed for sale is directly affected by the price of those goods and services. The buying public has only so many dollars available for spending on certain kinds of goods and services. When the price goes up, some people can no longer afford to buy. When the price goes down, more people can buy. The more people who can buy, the greater the product output and volume; therefore, more people and institutions can benefit from higher production and sales. The pricing of merchandise is a delicate balance of many factors.

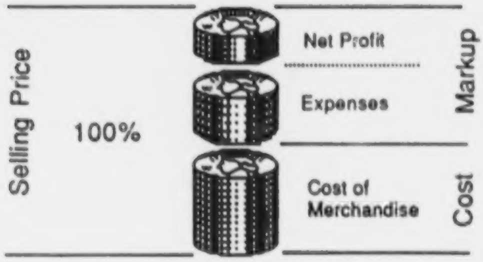
A company's prices must be in line with those of its competition. If a price is too high, people will quit buying the product or buy it elsewhere at a more reasonable price. If a price is too low, many people see this as a reflection on the quality of the product. Setting a price too low can hamper sales on some merchandise just as much as setting the price too high. Most retailers of the same classification will offer about the same lines of goods, prices, qualities, and services.

Markup

Prices should be based on facts. Emotions or greed should never enter into the pricing process. As you will learn in Assignment 28, "Margins and Profit," the fundamental objective in setting prices of merchandise is to recover costs and expenses of operating the business and still have a reasonable net profit left. **Cost** is what the merchandise actually costs the company. **Expenses** are all those store expenditures not associated with buying specific merchandise. The term **overhead** is sometimes used to mean the same thing as expenses.

Markup is an amount added to the cost of the merchandise. The cost plus the markup is the selling price (or the **retail price**). The retail price is always considered 100% and is the amount that the item will sell for at retail.

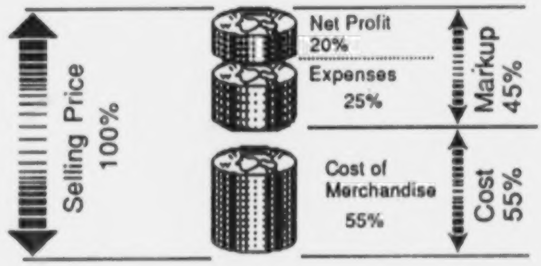
The terms **markup** and **markon** are often confused. Sometimes, **markon** is used for the first time an amount is added to the cost of merchandise to get the original selling price. Sometimes, **markup** is used for subsequent increases in price. However, because usage can vary, this assignment will use *markup* for all situations. Texts often also use that term for all cases.


Selling Price
100%
Net Profit
Expenses
Cost of Merchandise
Markup
Cost

Computing Retail Price from Cost and Markup Percentage

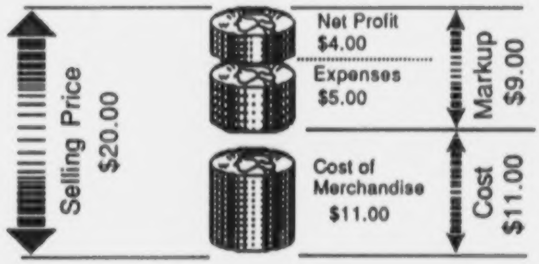
Most retailers compute markup based on retail price. Examining past records helps the retailer know how much the markup needs to be. Once it has been determined how much expenses are expected to be and how much profit is desired, these two are added together and combined with the cost of the item to arrive at the selling price or retail price.

20%	net profit
+ 25%	expenses (overhead)
45%	markup
+ 55%	cost
100%	selling price, or retail price


Selling Price
100%
Net Profit
20%
Expenses
25%
Cost of Merchandise
55%
Markup
45%
Cost
55%

The markup can be computed in either percentages or in dollars.

$4.00	net profit
+ 5.00	expenses (overhead)
$9.00	markup
+ 11.00	cost
$20.00	selling price, or retail price


Selling Price
$20.00
Net Profit
$4.00
Expenses
$5.00
Cost of Merchandise
$11.00
Markup
$9.00
Cost
$11.00

When determining the selling price of an item:

1. you already know the cost of the item;
2. you have determined the percentage of markup needed to cover expenses and make a profit (by examining past records); and
3. you know that the final selling price will be 100%.

That information can be used in the following way to compute the selling price (retail price) of the item:

$$\frac{\text{cost in \$}}{(100\% - \text{markup percentage})} = \textbf{retail price}$$

Example:

We know:

1. that the item cost $11.00;
2. by examining past records that we need a markup of 45% to cover expenses and make a profit; and
3. that the final retail price (selling price) will equal 100%.

$$\frac{\text{cost}}{100\% - \text{markup }\%} = \text{retail price}$$

$$\frac{\$11.00}{100\% - 45\%} = \frac{11}{0.55} = \$20.00$$

Proof: 100% – markup % (45%) = 55% (cost %)

$$\begin{array}{lrcrcrl} \text{markup} & 45\% & \times & \$20.00 & = & \$9.00 & \text{markup in \$} \\ \text{cost} & \underline{+\,55\%} & \times & \$20.00 & = & \underline{11.00} & \text{cost in \$} \\ & 100\% & & & = & \$20.00 & \text{retail price} \end{array}$$

When both the percentage cost and the dollar cost of an item are known, there is no need to subtract the markup percentage from 100% to find the cost percentage. (You already know what the percentage is, right?) In this case, the retail price can be computed by simply dividing the percentage cost into the dollar cost.

Example: If the cost of an item is 50%, and the dollar cost is $10.00, then the retail price would be $20.00.

$$\frac{\text{dollar cost}}{\%\text{ cost}} = \frac{\$10.00}{50\%} \quad \frac{\$10.00}{0.50} = \$20.00$$

Checking for Understanding: Computing Retail Price from Cost and Markup %

Note: Do not write in this space unless directed otherwise by your teacher.

Solve the following problem. A travel alarm cost the merchant $6.00. By examining past records and past experience, the merchant estimates that a 45% markup will be needed to cover expenses and have money left over for a profit. What will the markup be in dollars? ____________ What will the retail price of the travel alarm be?____________

Computing Markup and Cost Percentage from Retail Price

When the retail price is known and either the markup percentage or the cost percentage of the item is being determined, the process explained above is essentially reversed. Depending on what is sought, an additional factor must be known in each case.

Computing the markup percentage:

$$\frac{\text{markup (dollars)}}{\text{retail price (dollars)}} = \textbf{markup percentage}$$

Example: If markup is \$9.00 and the retail price is \$20.00, this is the calculation:

$$\frac{\$9.00 \text{ markup}}{\$20.00 \text{ retail price}} = 0.45 \text{ or } 45\%$$

Computing cost percentage:

$$\frac{\text{cost (in dollars)}}{\text{retail price (dollars)}} = \textbf{cost percentage}$$

Example: We know that the item cost \$11.00 and that the retail price is \$2.00.

$$\frac{\$11.00 \text{ cost (in dollars)}}{\$20.00 \text{ retail price (dollars)}} = 0.55 \text{ or } 55\%$$

Checking for Understanding: Computing Markup and Cost Percentage from Retail Price

Note: Do not write in this space unless directed otherwise by your teacher.

Solve the following problem. The retail price of a thermos at Zetler's is \$29.95. The thermos cost Zetler's \$17.37. What was the markup for the thermos in dollars? ________ What was the markup percentage of the thermos? ________________ What was the cost percentage of the thermos? ______________

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

cost
expenses
markup
markon
overhead
retail price

ASSIGNMENT 28

Margins and Profits

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* cost of merchandise, retail price *or* selling price, operating expenses *or* expenses *or* overhead, net profit, *and* margin *or* gross margin;
2. *discuss the relationship between margin, expenses, and profit;*
3. *explain why it is important to be accurate in calculating margins;*
4. *determine margin in dollars and as a percent of selling price;*
5. *determine selling price when margin percent and cost are given; and*
6. *determine selling price when cost in dollars and a cost percent are specified.*

Several studies of marketing executives have revealed that price ranks as the single most important marketing mix variable. That fact was reported in the sixth edition of *Contemporary Marketing*, by Boone and Kurtz (Dryden Press, New York, N.Y.). It underscores why so much attention is paid to all aspects of determining prices.

Most companies set pricing objectives that are consistent with their overall company goals. One objective might be to introduce a new product, while other pricing objectives might be to achieve market penetration, or to gain overall market share. The most fundamental pricing objective of a company, however, is survival. If the price is too low, the company will suffer losses. If the price is too high, the customer will buy elsewhere. Prices must be set so that there is an amount left for profit after all of the merchandise is paid for and all the expenses are paid. Thus, pricing cannot be based on guesswork, but on sound judgment, enough accurate information, and careful calculations.

Before the subject of margins and pricing is discussed, some of the terms used need to be explained.

Selling price is also referred to as **retail price** or, simply, **retail.** All three terms mean the same thing. The selling price is the final price at which the merchandise is planned to be sold. It includes the cost of merchandise plus expenses plus net profit. When discussing the factors that make up a price, remember that the selling price is always 100%.

In Assignment 27, selling price was said to be made up of two factors—cost of merchandise and markup. Markup is also expressed as margin, gross margin, markup, markon, or add-on. All five terms mean the same thing. **Margin** is the difference between the selling price (or retail price) and the cost of the merchandise.

retail price (or selling price) – cost of the merchandise = **margin**

However, margin itself has two parts:

margin = operating expenses + net profit

Operating expenses, or just **expenses,** include any and all of the expenses that arise in the operation of a business. These expenses are rent, utilities, advertising, display, taxes, insurance, delivery, donations, goodwill, and the countless other expenses of doing business. Operating expenses do not include the cost of the merchandise.

Net profit is what is left after all expenses have been subtracted from the margin.

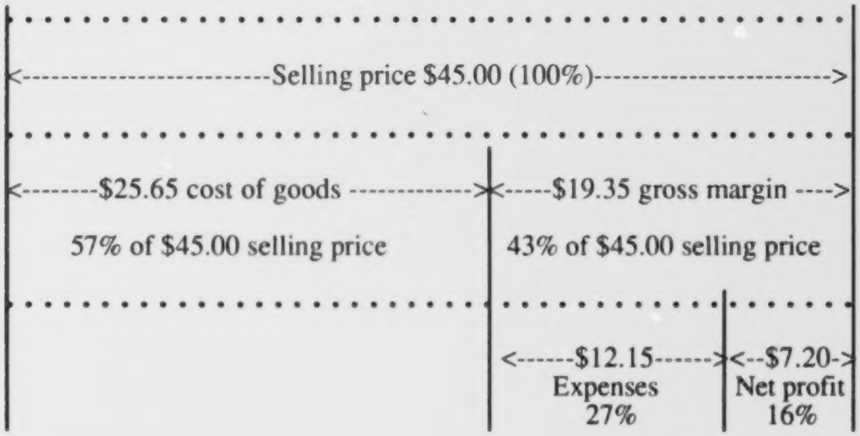
Retail price can therefore be analyzed in two ways, as having two parts or as having three parts. Many employees have to do calculations based on only the two-part analysis, cost plus margin. Management has to make careful calculations that ensure that the margin part of the retail price will be large enough to pay both expenses and net profits.

Parts of the Margin—Expenses and Net Profit

The cost of the merchandise and the margin are two parts of the whole—the selling price. Now, let's take a closer look at one of those two parts—the margin. Operating expenses must be paid out of the margin, and, if the company is to stay in business, some of the margin must be left over to make a net profit. This is the equation.

margin – operating expenses = **net profit**

For example, a company may know that its operating expenses are 27% of the retail price, and its intended profit is 16%. That means the margin has to total 43%, and the cost of the merchandise can be only 57%. The following illustration depicts that situation: Each dot (•) represents $1.00. There are 45 dots to represent $45.00 for the selling price of a pair of sunglasses.



<-------------------------Selling price $45.00 (100%)----------------------->
<--------$25.65 cost of goods ------------>
57% of $45.00 selling price
<-----$19.35 gross margin ---->
43% of $45.00 selling price
<------$12.15------>
Expenses
27%
<--$7.20->
Net profit
16%

The task of deciding on what the gross margin should be for a particular item or line of merchandise in a specific store or department is quite complicated. For example, management knows that even though they start with one price they may have to mark down the prices on some of the items. They also know that some items will be stolen or damaged. They will give discounts to some merchandise. They may even decide that some items should have different markup percentages than others. They may sell some merchandise at a lower price in order to sell it faster and have a faster stock turnover rate. Some items may be saleable at a higher margin than others. For a number of reasons, the net profit that the margin is supposed to ensure may not be realized. Management has to specify margins that take account of many possibilities. For whatever reason decisions are made, other employees will need to be accurate in the calculations they must make to arrive at the desired margins.

Determining Margin in Dollars

selling price – cost of merchandise = **margin** (or gross margin)

Example: At Sungear, the selling price of a pair of sunglasses is \$45.00. The glasses cost Sungear \$27.00. The margin is \$18.00. From this \$18.00 margin, Sungear must pay all of their expenses and only the amount that is left over after that can be considered net profit. Net profit is equal to the margin minus all the costs of running the business.

margin – expenses = **net profit**

Checking for Understanding: Determining Margin in Dollars

Note: Do not write in this space unless directed otherwise by your teacher.
Sungear also carries a line of beach towels. Their most popular towel sells for \$22.95. The towel costs them \$13.00. How much is Sungear's margin on the towel? __________

Determining Margin in Percentage

Margins are also stated as a perçentage of selling price. Since the selling price is always equal to 100%, the two parts of that whole price (cost and margin) must equal 100% when added together.

Example: If the selling price (100%) is \$45.00 for the sunglasses and the cost is \$25.65, then the percentage of cost can be found by dividing the total price into the cost:

$$\frac{\$25.65 \text{ cost}}{\$45.00 \text{ retail price}} = 0.57 \text{ or } 57\%$$

This process could be repeated to find the percentage of the margin:

$$\frac{\$19.35 \text{ margin}}{\$45.00 \text{ retail price}} = 0.43 \text{ or } 43\% \text{ margin}$$

Thus:

$$\begin{array}{rcrcr} \$25.65 & = & 57\% & = & \text{cost} \\ \underline{+\ 19.35} & = & \underline{+\ 43\%} & = & \underline{+\ \text{margin}} \\ \$45.00 & = & 100\% & = & \text{selling price} \end{array}$$

Checking for Understanding: Determining Margin in Percentage

Note: Do not write in this space unless directed otherwise by your teacher.
In the problem above, the beach towel sells for \$22.95 (100%) retail price. The cost is \$13.00. What percentage of the retail price would the \$13.00 cost be? ______________

Determining Selling Price When Percentage and Cost Are Given

In the example above, the company probably knew it could not experience a 16% profit on this item unless it had a gross margin of 43%. For that reason it specified that such a margin was required, and the buyer then became responsible for comparing the cost to an anticipated sales price to see if it were practical to obtain the desired profit.

For example, suppose an item cost $6.00 and would not return enough profit unless it could sell with a 40% markup. If the buyer thought the top price that could be charged would be $8.95, would this item provide the margin required?

This is figured with this equation: $\frac{\text{cost}}{100\% - \text{margin}} = \text{selling price}$

and $\frac{\$6.00}{100\% - 40\%} = \frac{\$6.00}{60\%} = \frac{\$6.00}{0.60} = \$10.00$

The answer is "no." The item would have to sell for $10.00 to have a margin of 40%.

Checking for Understanding: Determining Selling Price when Margin Percentage and Cost Are Given

Note: Do not write in this space unless directed otherwise by your teacher.

Suppose a store determines that its expenses are 28% and it wants a profit of 8%. What would the selling price have to be for an item that costs $15.00?_____________

Determining Selling Price When Cost in Dollars and a Cost Percentage Are Specified

In some cases, a store may specify that the cost of an item must be a given percentage of the selling price. It might say that the cost must be 60% of the selling price. This is the equation that would be used for this situation:

$$\frac{\text{cost } \$}{\text{cost } \%} = \text{selling price}$$

For example, suppose the item cost $82.00, and the store said that should be 41% of the selling price. What would the selling price be?

$$\frac{\$82}{41\%} = \frac{\$82}{0.41} = \$200$$

Checking for Understanding: Determining Selling Price When Cost in Dollars and a Cost Percentage Are Specified

Note: Do not write in this space unless directed otherwise by your teacher.

The store management says the cost of items must be 58% of selling price. What will be the selling price if an item costs $10.00? _____________

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

selling price
gross margin
operating expenses
net profit

ASSIGNMENT 29

Break-Even Point

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* break-even point, variable costs, *and* fixed costs;
2. *discuss why the number of items sold influences whether there will be a loss or a profit, and how much each will be;*
3. *determine the break-even point mathematically, in terms of how many of a specific item must be sold; and*
4. *draw and interpret a break-even graph.*

One of the primary goals of every business is to make a profit. To be able to make that profit, the business must sell its merchandise or service for more than it costs to market the merchandise or service to the consumer. It has to cover all of its expenditures, from the cost of merchandise to the operating expenses. A certain amount of money is required just to keep the store open. More is required to buy and sell merchandise.

Businesses must know at what point they will have sold enough merchandise to meet all their expenses and return a profit also. The point at which the money spent on buying and marketing merchandise is equal to the revenue gained by selling the merchandise is known as the **break-even point**. For example, a merchant may have to spend $5,000 on merchandise plus another $5,000 to sell it. If less than $10,000 worth of merchandise is sold, there will be no profit, no matter what markup has been assigned individual items.

For this assignment, the term **costs** will be used to describe all expenditures, whether they are for the cost of the merchandise or the expense of selling the merchandise. For this type of analysis, some people will use the word *expenses* instead of the word *costs* to cover all expenditures.

There are two kinds of costs involved in producing and delivering products, fixed costs and variable costs.

Fixed costs are those expenses that do not vary with the level of sales. Examples of fixed costs are building rental and upkeep, cost of equipment, and insurance. Also, if employees are paid by the hour, week, or month, the payroll cost will be the same no matter how much is sold.

Variable costs are the costs that change with the level of sales, such as cost of merchandise, transportation for bringing the merchandise to the store, costs of wrapping and delivering merchandise, and commissions paid on sales.

When this concept is drawn in a picture, definite layers emerge.

The first layer includes the fixed costs. These costs will be there regardless of how many items are actually sold.

The second layer begins where the first layer ends. These variable costs are additional costs that differ according to how many items are sold.

The two first layers make up the costs, fixed and variable. More accurately, they include costs of merchandise plus all expenses.

The third layer is the profit. This layer begins where the second layer ends. Then, as more and more items are sold, more and more profit is realized. All the fixed costs have been met, and more of the retail price can go to profit.

The three layers added together have an impact on the retail prices set for merchandise. Prices have to be low enough to get people to buy enough merchandise to meet both fixed and variable costs. They also have to be high enough so that an adequate profit can be realized after all the costs have been met. The actual profit gained can vary greatly with the number of units sold—in fact, the results can easily turn into a loss.

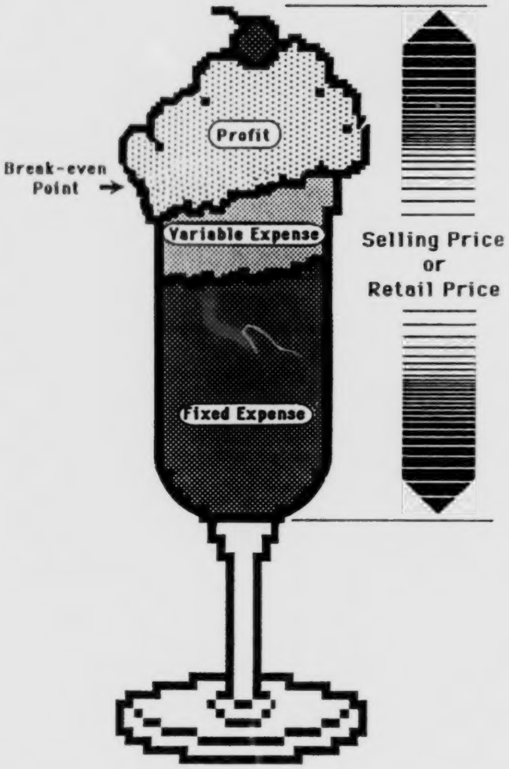


Fig. 1. A well-selected selling price will create a "sundae" with all the required ingredients, including profits.

Determining Break-Even Point

Every item sold will contribute toward both fixed and variable costs. But until both types of costs are met, the item will not contribute toward profit. The break-even point is where all related costs have been met.

For example: An item costs $25.00 and sells for $50.00. Other variable costs associated with it are $5.00. Total variable costs related to units sold are $30.00 each. That leaves $20.00 from each sale to pay fixed costs.

The fixed costs are $1,000.00 a month no matter how many items are sold. Because each sale only contributes $20.00 towards fixed costs, 50 units must be sold just to pay those costs. However, at a retail price of $50.00, the sale of 50 items would produce total revenue of $2,500.00.

The total revenue of $2,500.00 will be divided between fixed costs and variable costs. Fifty units pay $30.00 each to variable costs—a total of $1,500.00. The same 50 units pay $20.00 each for fixed costs—a total of $1,000.00. That leaves nothing for profit.

The 51st item sold pays $30.00 for variable costs, but has $20.00 available for profit. If only 51 items are sold, the profit realized per unit is too low.

Checking for Understanding: Determining the Break-Even Point

Note: Do not write in this space unless directed otherwise by your teacher.

Donnell's Doll Shop has fixed expenses of $900.00 per month, and variable expenses and costs that average $10.00 per doll. How many dolls does Donnell's have to sell at an average retail price of $30.00 per doll before she begins to make a profit? ____________

Using a Graph to Show Where the Break-Even Point Occurs

One way to determine the break-even point for a department or store is by drawing a graph such as the one shown in figure 2. Even if carefully done, such a graph may not be precise enough, but it does indicate approximately where the break-even point would occur. It can also be used to estimate how much profit or loss will occur at each particular sales level.

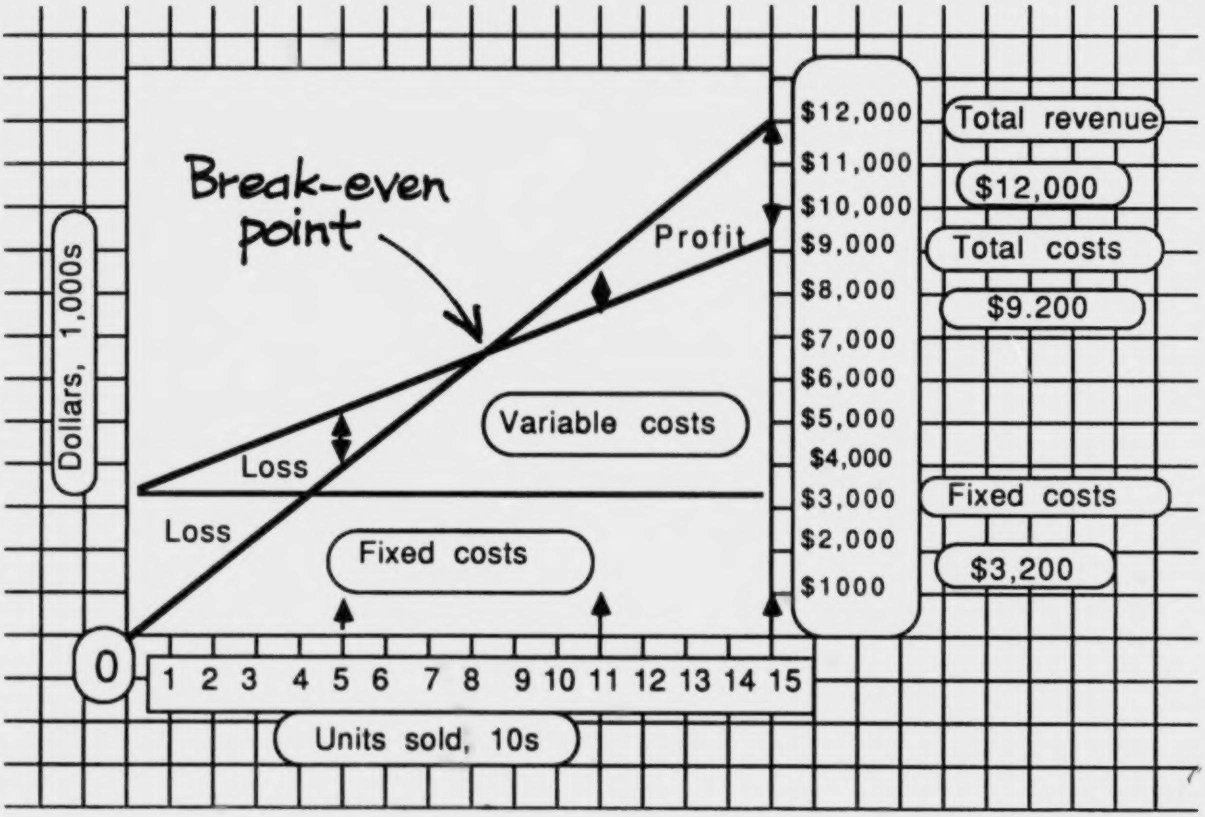


Fig. 2. Break-even graphs such as this one show what profits, or losses, occur when different numbers of units are sold during a period.

In this as in other graphs, the information is arranged along two lines. The vertical line in this case is for dollars. The horizontal line is for the number of units, or items, sold.

In this example, the merchandise items sell for $80.00 each, and have a variable cost of $40.00 each, including cost of merchandise. As many as 150 units may be sold during the period. Fixed costs for the period total $3,200.00.

1. The first step was to draw the **fixed cost line,** which is *horizontally* placed across the graph at the $3,200.00 mark.
2. Next, a **total costs line** was drawn. This was done by drawing a *sloped* line to represent **variable costs.** Every time an $80.00 item is sold, variable costs of $40.00 must be paid. The **total costs line** is drawn above the fixed cost line, to show that variable costs are not met until all fixed costs are covered. Total variable costs for selling 150 units are $6,000.00. That plus the $3,200.00 for fixed costs gives a total cost of selling 150 units of $9,200.00, as shown at the right. The **total costs line** goes from $3,200.00 at the left to $9,200.00 at the right.
3. Next, the **total revenue line** was drawn. It starts at the 0 at the left, because it is not affected by the fixed costs. *Sloping upwards* to the right, this line shows that the revenue for selling 150 items at $80 each will be $12,000.00. So the total **revenue** line goes from 0 to $12,000.00. If 150 units are sold, then profit would be the total revenue of $12,000.00 minus total costs of $9,200.00, or $2,800.00 in profit.
4. Finally, the **break-even point** was located where the **total costs line** crosses the **total revenue line.** This point is at 80 units, which would bring in $6,400.00. Of that, $3,200.00 would go for variable costs, and $3,200.00 for fixed costs.

On the graph, the precise break-even point given in number 4 above would not be easy to locate. For this example, the break-even point was calculated after the approximate location was found. A graph makes it possible to show the approximate results of many different selling levels, and after that exact results can be calculated.

Here are two examples of how to use this graph for various sales levels.

Suppose that all 150 units are sold. The result can be read along the graph line at the right. The distance between the sloping **total costs line** and the sloping **total revenue line** gives the amount of profit. In this case, the distance represents $2,800.00. That can also be calculated mathematically to check accuracy.

Suppose instead that only 50 units were sold. That result would be read along a line you draw upward from 50 units. Again, the difference would be the distance between the **total costs line** and the **total revenue line.** By looking at it, you can see that it shows a loss between $1,200.00 and $1,500.00. Checking mathematically, you will find the loss to be $1,200.00.

Checking for Understanding: Reading a Break-Even Chart

Note: Do not write in this space unless directed otherwise by your teacher.

Using the chart in figure 2, estimate the profit that would be made if 110 units are sold. Check your results mathematically.________________

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

break-even point
fixed costs (or *expenses)*
variable costs (or *expenses)*

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship
UNIT X / FINANCIAL STATEMENTS

ASSIGNMENT 30

Income Statement

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* income statement, operating income, other income, revenue, total *or* gross sales, net sales, gross margin, cost of goods sold, operating expenses, net operating income, *and* other income;
2. *demonstrate an understanding of the income statement and how figures from different functions within the business fit together to form a total picture;*
3. *interpret the degree of profitability of a company when reading an income statement; and*
4. *complete and compute an income statement when given the appropriate information.*

A student will probably never be called upon to prepare financial statements or budgets. Only seldom, if ever, may a student even see these records. However, the student should know about the financial records that management relies upon to direct its decisions. The student should also learn how these records directly and indirectly affect his or her job.

Many times, the employee will be called upon to supply figures that the department manager, store manager, or merchandise manager will need in order to complete a financial statement. In these cases, it will certainly be helpful to know why these statements and figures are needed, how they are used, and the importance of accuracy.

An income statement can be compared to a moving picture of the business's operations over a specific period of time. It represents the results of transactions that took place during that time. The income statement measures the profitability of a company for a given period of time. This statement is also sometimes called the operating statement or the profit/loss statement.

An income statement furnishes management with information about revenue of all kinds, cost of goods sold, gross margin, net operating expenses, net operating income, and net income for the stated period. The report can cover any period of time—a month, quarter or year.

This financial report allows management to look at the "big picture" and determine the factors responsible for net profits or losses for the period of time it covers. As figure 1 shows, three major calculations are required—finding gross margin, net operating income, and net income. However, other calculations are required also. Figure 1, "Parts of an Income Statement," is an overview of how information relates. First, the gross margin that is available to cover expenses is calculated. Then the operating expenses are subtracted from gross margin to get the net operating income. Then, if there is any other income earned, that is added to the operating income to get the net income for the business.

The best way to learn how the various items of information contribute to the picture is to study an income statement one item at a time. The statement for Blenco Co. provided under Checking for Understanding should be used with the following discussion. It is presented as figure 2 and may be copied or redrawn for use with this discussion.

To determine gross margin, these figures are used.
1 - 4

To determine total operating expenses, these figures are used.
6 - 10

To determine total other income, these figures are used.
13 - 14

Finally, a net income figure can be found.

Income Statement
For the Year Ending December 31, 19__

Operating Income

1. Sales	$______		
2. Less returns, discounts, allowances	$______		
3. = Net sales		$______	
4. Less cost of goods sold		$______	
5. = GROSS MARGIN		$______	

Operating Expenses

6. Employee compensations	$______		
7. Rent	$______		
8. Utilities	$______		
9. Advertising expense	$______		
10. Property upkeep	$______		
11. = TOTAL OPERATING EXPENSE		– $______	
12. NET OPERATING INCOME			$______

Other Income

13. Total lease income		$______	
14. Vending machine income		$______	
15. = TOTAL OTHER INCOME			$______
16. NET INCOME			$______

Fig. 1. Parts of an income statement: All the figures on an income statement can be analyzed by management to plan better ways to do business. Gross margin less total operating expenses equals net operating income. Net operating income plus other income equals net income.

Determining Gross Margin

Income statements usually divide income (or revenue) received into two kinds. The term **operating income** in this and similar statements refers to only that income that results from sales of the products or services on which the store focuses. A clothing store sells clothing to get its operating income. The term **other income** refers to income received from some other source, such as leasing space to a related business. The term *revenue* is sometimes used in place of income.

Reporting operating income on this income statement requires lines 1 through 3 in the income statement in figures 1 and 2. Sales on line 1 refers to **total sales,** or **gross sales.** From that must be subtracted all returns, allowances, and discounts to get **net sales**. This equation shows what is done:

Gross sales – returns, allowances, discounts = **net sales**

Example: You will be completing the income statement for Blenco Foods during this and later examples. See figure 2, Checking for Understanding. To begin with, assume that Blenco has gross (total) sales of $195,000.00 for the year. Write in that total on line 1, sales. It had given $2,000.00 in discounts and $1,500.00 in allowances, and had $4,500.00 in returns for the year. Add those three items together and place on line 2. Blenco's net sales for the year would be $187,000.00. Place this number on line 3.

From net sales must be subtracted the cost of goods sold to get the **gross margin.**

Cost of goods sold is the actual cost of the merchandise that was sold during the period. Cost of goods sold can be calculated by starting with the dollar value of the beginning inventory. To this figure, add the dollar value of all purchases, then subtract the dollar value of the ending inventory and any returned merchandise and discounts. This is the equation:

Cost of goods sold = (beginning inventory + purchases) – (ending inventory + returned merchandise and discounts)

Example: Blenco began the year with $65,000.00 worth of merchandise in inventory. During the year, $110,000.00 worth of merchandise was purchased (of which $3,000.00 was returned to the vendor). The ending inventory for the year was $62,000.00. The cost of goods sold for Blenco was $110,000.00. That amount goes on line 4 of Checking for Understanding. This is the calculation that was used:

($65,000 + $110,000) – ($3,000 + 62,000) = $110,000

The amount left from revenue after subtracting the cost of goods is known as the **gross margin** (or gross profit on sales).

Net sales – cost of goods = **gross margin**

Example: Blenco had net sales of $187,000.00. The cost of the goods sold was $110,000.00, which must be subtracted from the net sales to compute the gross margin (or gross profit on sales). $187,000 – $110,000 = $77,000. So, Blenco's gross margin was $77,000.00. Place that number on line 5 of Checking for Understanding.

Determining Net Operating Income

The **operating expenses** reported on an income statement are any costs of operating the business other than the cost of merchandise (cost of goods sold). Some examples of expenses are personnel expenses, utility bills, rent, and some taxes. The cost of merchandise (goods) sold is not listed in the expense section of the income statement. Expenses are entered by categories on lines 6 through 10 of the statement.

Example: Salaries, wages, and other employee compensations at Blenco amounted to $32,000.00. The rental fee for the property was $13,000.00; utilities totaled $2,400.00; advertising was $3,500.00; and miscellaneous expenses for upkeep of property were $2,500.00. Blenco's **total operating expenses** for the year were $53,400.00. That number goes on line 11 of Checking for Understanding, to show total operating expenses.

$32,000 + 13,000 + 2,400 + 3,500 + 2,500 = $53,400

The **net operating income** is that money left from the gross margin after subtracting the operating expenses. Revenue generated from sales is the only income generally counted in the net operating income. This allows the business person to compare sales and expenses to see if the markup needs to be adjusted.

Example: Blenco's gross margin was $77,000.00. Their total operating expense was $53,400.00. When the expenses are subtracted from the gross margin, it shows that their **net operating income** is $23,600.00. Place that figure on line 12 of Checking for Understanding.

Determining Net Income

Any other income which does not come from sales of merchandise—such as income from leases, vending machines, sales of waste materials, etc.—is placed in a separate category so that it will not distort the "income on sales" picture.

Example: Blenco leases their beverage department for $10,000.00 and collects $4,000.00 from stamp and soft drink machines, so their **other income** (or other revenue) amounted to $14,000.00 for the year. These figures would be placed in lines 13-15 of Checking for Understanding.

Next, other income is added to the net operating income to get the **net income** which indicates the overall profit picture of the company. Add the net operating income and other income, then place your answer on the NET INCOME line (line 16) of Checking for Understanding. The net income is $37,600.00.

With an income statement such as this, a manager or owner can make various comparisons and analyses. For example, the net sales may be compared to the gross margin to see if the business is maintaining a margin planned earlier. Perhaps the cost of goods sold was higher than anticipated. Also, the net operating income may be compared to the total sales to see how well the business is doing. The operating expenses will probably be studied to see if they can be managed better. Almost every item has some impact on whether the business is yielding the expected profit. Businesses may be compared to each other with these figures.

While the form for an income statement may vary from business to business, the title lines of the report follow a predictable standard. The first line gives the name of the firm; the second gives the title of the report; and the third specifies the period of time the report covers. The form shown in the Guided Practice is typical for a merchandising business.

Checking for Understanding: Preparing an Income Statement

Note: Do not write in this space unless directed otherwise by your teacher. The form may be copied for your use, or redrawn.

Blenco Foods
Income Statement
For the Year Ending December 31, 19__

Operating Income			
1. Sales	$__________		
2. Less returns, discounts, allowances	$__________		
3. = Net sales		$__________	
4. Less cost of goods sold		$__________	
5. = GROSS MARGIN		$__________	
Operating Expenses			
6. Employee compensations	$__________		
7. Rent	$__________		
8. Utilities	$__________		
9. Advertising expense	$__________		
10. Property upkeep	$__________		
11. = TOTAL OPERATING EXPENSE		– $__________	
12. NET OPERATING INCOME			$__________
Other Income			
13. Total lease income		$__________	
14. Vending machine income		$__________	
15. = TOTAL OTHER INCOME			$__________
16. NET INCOME			$__________

Fig. 2. An income statement

ASSIGNMENT 31

Balance Sheets

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* balance sheet, liabilities, current liabilities, fixed liabilities, assets, current assets, fixed assets, solvent, equity, proprietorship, *and* net worth; *and*
2. *prepare a personal or a business balance sheet when given the appropriate information.*

As an income statement can be compared to a moving picture of a business's operations, the balance sheet can be considered a "snapshot" of the company's financial health on any given day within that movie. This "snapshot" shows the accumulated results of all business transactions that have occurred since the business began. The balance sheet indicates a company's ability to pay its bills. When a company has the ability to pay all of its debts, it is said to be **solvent.**

The **balance sheet** shows what the business owns, what it owes, and how much it is worth. It consists mainly of three parts: the assets section, the liabilities section, and the equity section.

A company's **assets** include anything the business owns that has value. These assets are classified as either current assets or fixed assets. **Current assets** are those things the company owns that can be converted into cash within a one-year business cycle. Examples of current assets are inventory on hand, cash, accounts receivable, and short-term securities. **Fixed assets** are those things the company owns that will be used for more than a year. Fixed assets include buildings, heavy equipment, and long-term securities.

Liabilities are the financial obligations that a company has to creditors—or what the company owes. Liabilities are also classified as current or fixed. **Current liabilities** include such things as taxes, accounts payable, and short-term notes. **Fixed liabilities** are things such as mortgages on property, depending on when they must be paid.

Owner's equity is sometimes called **net worth** or **proprietorship**. The equity is what is left over when the liabilities (what is owed) have been subtracted from the assets (what is owned). To determine the amount of equity an owner has, the liabilities are subtracted from the assets. This equation is used:

Assets (amount owned) – liabilities (amount owed) = equity

Example: If Nadia Enterprises has assets amounting to $80,000.00 and liabilities of $50,000.00, the owner's equity (or actual ownership of Nadia) is $30,000.00.

The Balance in a Balance Sheet

When the liabilities are added to the equity, the total must be the same amount as the assets. They are said *to balance*. This indicates that the entire financial picture of the company is shown.

Total liabilities (owed) + equity (net worth) = total assets

Example: Assets on the left must balance liabilities plus equity on the right of the statement.

Nadia Enterprises
Balance Sheet
as of
December 31, 19 __

ASSETS		LIABILITIES	
Current assets	$25,000	Current liabilities	$15,000
Fixed assets	$55,000	Fixed liabilities	$35,000
Total assets	$80,000	Total liabilities	$50,000
		EQUITY	$30,000
		Total liabilities and equity	$80,000

Checking for Understanding: Calculating Net Worth and Liabilities

Note: Do not write in this space unless directed otherwise by your teacher.
If Corona's fixed assets are $60,000.00, their current assets are $40,000.00 and their liabilities are $70,000.00, what is the net worth (equity) of the company? ____________

Lexington's assets are $200,000.00 and the owner's equity is $75,000.00. How much does Lexington owe? ___________

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

assets
balance sheet
current assets
equity
fixed assets
liabilities
net worth
proprietorship
solvent

Relates to
ME II: (c)(5)(C)(D)(E)(F)
on financial planning
and entrepreneurship
UNIT X / FINANCIAL STATEMENTS

ASSIGNMENT 32

Preparing and Using Graphs and Charts

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* visualization, graph, chart, bar chart, *and* pie chart;
2. *explain the differences in graphs and charts;*
3. *list the three purposes of graphs and charts;*
4. *demonstrate the ability to read graphs and charts and interpret information in them; and*
5. *construct graphs and charts when given appropriate information.*

We have all heard the old saying, "A picture is worth a thousand words." Business people have found that data is much easier to explain and understand when the numbers are presented as a picture. Presenting data as a picture is known as **visualization** of data. Statistics are usually visualized in one of two ways: graphs or charts.

The terms used to describe these two basic types of visualization of data (graphs and charts) are often used interchangeably. It is important to remember that there are important differences in the two.

Like other visual presentations, the primary purpose of both graphs and charts is to clarify information for the viewer. Additionally, they are meant to show the relationship of figures, and to emphasize trends and changes.

Graphs

Graphs have two purposes. First, graphs are used mathematically, or analytically. Graphs are used to plot two or more variables, such as number of items sold and total expenses. This can help determine the effects of a change of one variable upon other variables.

The break-even graph in Assignment 29 was a good example. It had a vertical scale along which were numbers indicating thousands of dollars. Points placed in relation to this scale were used to plot fixed expenses, variable and total expenses, and total income. The break-even graph also had a horizontal scale for the number of items sold, marked in tens.

Each point was related to both units sold and dollars involved. Lines drawn from point to point on the graph then showed how the variables related to each other. For example, the number of units sold did not increase the fixed expenses, which could be shown on a horizontal line. However, the number of units sold did affect the total income, and that was shown on a sloped line.

A second purpose of graphs is to make it easier for persons to visualize various effects quickly. An upward slope can show more sales, or increased expenses, or whatever. An up and down slope can show when things change, so the graph user can try to find out why they changed.

The graph in figure 1 shows the trend of local sales of a radio station for a five-year period. For some reason, they dipped slightly in 1988. It may or may not have been significant, because it was a minor change. Nevertheless, this change should be examined.

Figure 1 also indicates something that is important about reading graphs (or charts). Always read and analyze the *actual numbers*. In this case, to save space, there is no 0 (or zero) line. That is important if the viewer doesn't take note of (1) the value of the lowest line on the chart and (2) how far apart the various graduations are. Otherwise the line might look as if sales in 1990 were three times as high as in 1987. Actually, they went from around $67,700.00 to not quite $74,000.00.

Also to save space, the years are fairly close together. That makes the slopes steeper and again makes the increases look greater than the data shows them to be.

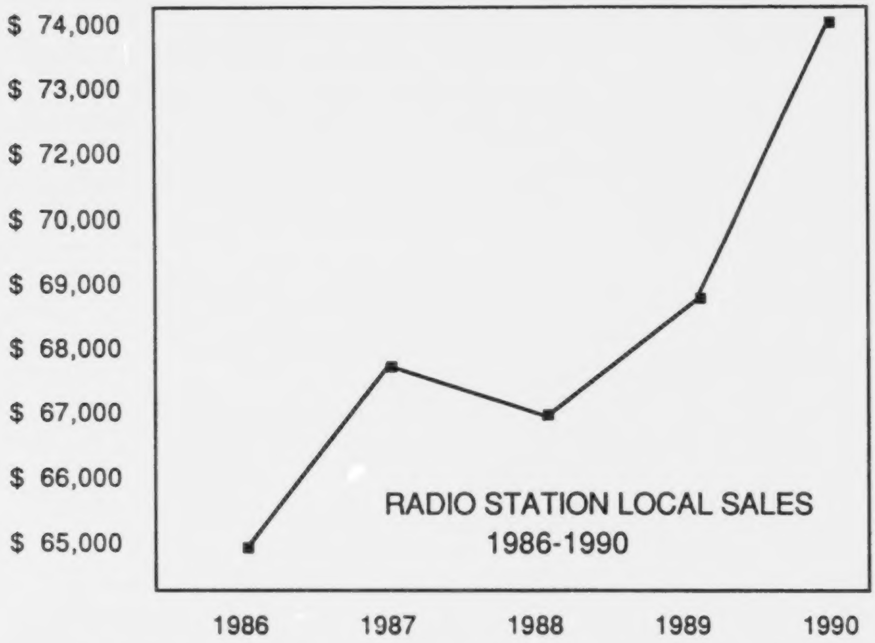


Fig. 1. A graph showing sales trends for local sales in a radio station

Preparing and Interpreting a Graph

Figure 1 can also be used to learn how a graph is prepared. Two basic lines were drawn, one vertical at the left, and one horizontal at the bottom. Often, at least the first sketch of a graph will be done on graph paper, for both ease and accuracy.

Along the left line, marks were placed for every $1,000.00 in sales. (But a different scale could have been used, such as $2,000.00s in sales.)

Along the bottom line the five years involved were written at regular intervals.

Points were then placed at appropriate places on the graph. For example, the first point is at $65,000.00 and the year 1986.

After all the points had been placed, they were connected by lines.

Trends for more than one set of statistics can be plotted on a graph by using a different thickness or format for each line. Solid, dotted, or dashed lines are often used, as shown in figure 2.

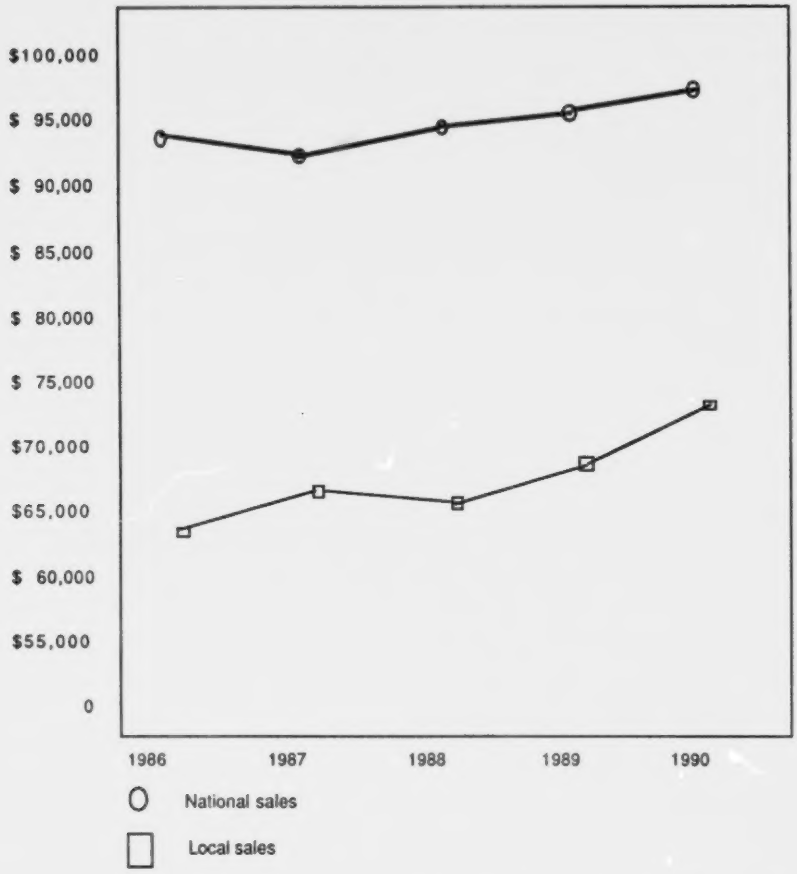


Fig. 2. A graph that makes comparisons possible. Its lines clearly show differences in sales trends between national and local sales. An analyst would seek to find out the reason for the difference.

Example: In this graph, the dashed line represents local sales, and the dotted line, national sales. At a glance several facts are evident:

- Both local and national sales have increased, overall, for the five-year period.
- National sales suffered a slight decrease one year before local sales.
- Over the entire period, local sales have increased more than national sales.

If the same information had been expressed only in a series of numbers, a relationship between each of those numbers would be difficult to recognize. Try to see the relationship with only the following presentation.

Local sales: 1986, $65,000; 1987, $67,000; 1988, $66,000; 1989, $69,000; 1990, $74,000

National sales: 1986, $93,000; 1987, $92,000; 1988, $94,000; 1989, $96,000; 1990, $97,000

Those same figures visualized in a graph are much easier to read and the relationship between the two sets of numbers is more easily seen. The graph in figure 2 clearly shows the trend in both national and local sales as well as the relationship of each to the other.

Charts

A chart shows a part's relationship to the whole, or to other parts of the whole. In other words, charts are primarily used to compare two or more things. Also, charts are less likely to be used in analysis. Instead, they simply represent what has been determined in some other way.

It is important for charts to be visually accurate. When two things are being compared, they must not appear to be more different than they are.

Example: The charts in figures 3 and 4 provide visualizations comparing the local sales to the total sales for the same period. These charts are examples of bar charts, which can be plotted in much the same fashion as a graph, except that each column stands alone and they *are not connected* with a line. The bars in a bar chart can run vertically or horizontally. In both cases, it was necessary to have one scale for dollars and the other scale for the years. Note that both charts start from a zero point, so bars can be compared visually with more accuracy.

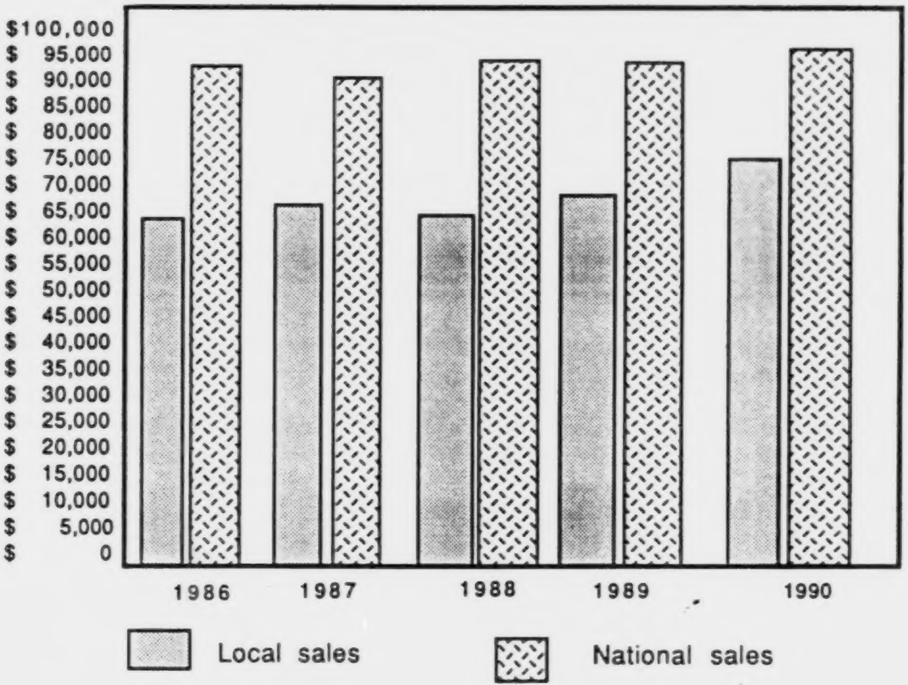


Fig. 3. A vertical bar chart, also known as a column chart. It shows sales trends as well as indicates how local and national sales compare for each of five years.

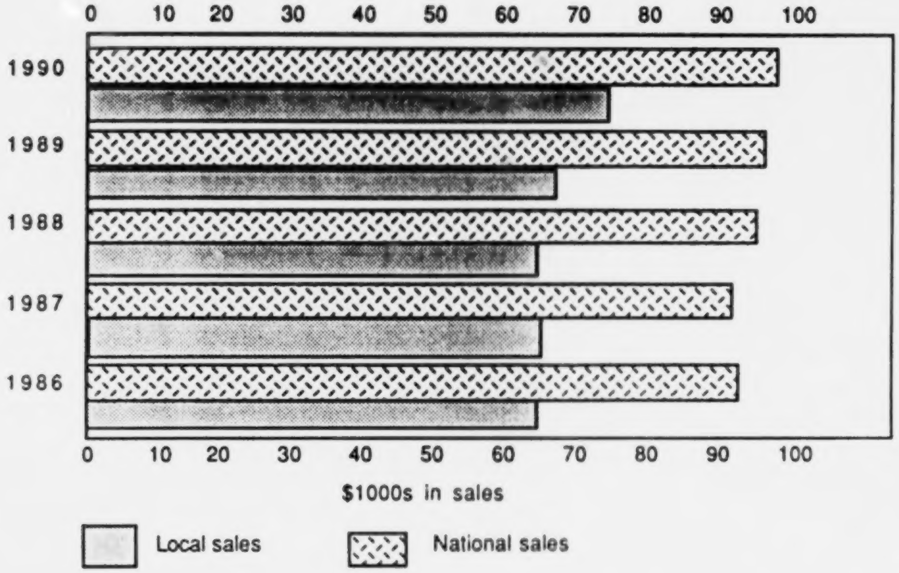


Fig. 4. A horizontal bar chart, with the same information as in figure 3

Another way of presenting information is by using the pie chart, shown in figure 5. This is particularly appropriate when showing how 100% of something can be cut up into "slices of pie." A pie chart is a circular chart. Each shaded area represents a portion of the pie, or a percentage of the total. In this case, the local sales were 42.2% of all sales for the year. Also, the national sales were 57.8% of all the sales for the year.

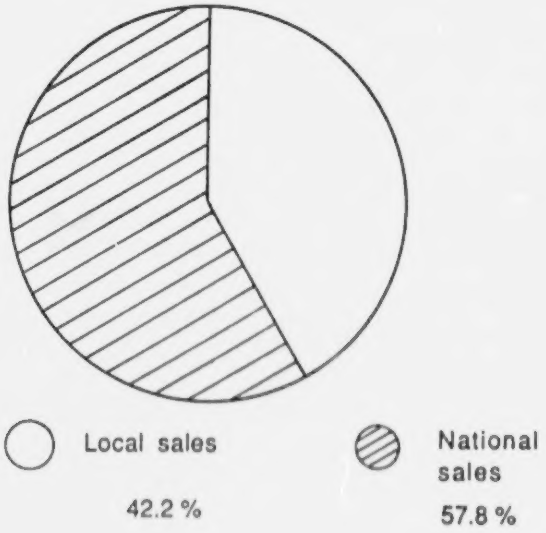


Fig. 5. A pie chart provides an easily understood way to show how parts relate to the whole, and to each other, in size.

Checking for Understanding: Developing Graphs and Charts

Note: Do not write in this space unless directed otherwise by your teacher.
The easiest way to develop the graphs and charts would be to use graph paper. Such a graph can be drawn with 1/4-inch squares.

1. The Visimarketing Corporation is a contract company that builds visual displays for several stores in the state. Their gross sales for the first three months of the year are shown below. Plot a graph showing the trend in Visimarketing's gross sales for the three-month period. The figures are April, $36,000.00; May, $26,000.00; and June, $29,000.00.
2. Draw a vertical bar chart comparing each month's sales with the three-month sales total.
3. Draw a bar chart and a pie chart showing how much the sales for April were in comparison with the overall sales for the three-month period.

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

visualization
chart
bar chart
graph
pie chart

ASSIGNMENT 33

Checking Accounts

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* check, checking account, ID, overdrawing, service charge, FDIC individual account, joint account, cosignature account, passbook account, signature card, stop payment, postdated check, payee, payor, bank statement, reconcile, cancelled checks, outstanding checks, endorse, *and* negotiable;
2. *describe five advantages and four disadvantages of having a checking account;*
3. *list at least four factors to be considered when choosing a bank;*
4. *identify types of accounts when given examples;*
5. *name the parts of a completed check, and recognize incorrectly written checks;*
6. *discuss cautions to be observed when writing checks;*
7. *discuss the route a check follows from the time it is written until money is withdrawn from the account;*
8. *follow directions for reconciling a bank account to the monthly statement; and*
9. *demonstrate different kinds of endorsements, and identify inappropriate endorsements when given examples.*

Upon becoming wage earners and beginning to function in the financial world as adults, most students will choose to open a checking account. A **check** is a written order directing a bank to pay a designated amount of money to the person or organization named on it. A **checking account** is money deposited in the bank from which money is taken to pay the person named on the check. There are some distinct advantages to using a checking account for financial transactions. There are disadvantages also.

Advantages and Disadvantages of Checking Accounts

The three main advantages of having a checking account are safety, convenience, and record keeping.

When using a checking account, one does not need to carry large amounts of cash. Carrying checks is much safer than carrying cash. Checks can be sent through the mail with minimal danger of loss, and paying bills by mail saves time as well. If your check is lost or stolen, you can instruct your bank to **stop payment** (not honor the check). Other reasons for stopping payment on a check are (1) when fraud is discovered, (2) when the payee has not fulfilled terms agreed upon, and (3) to avoid double payment.

Keeping track of where your money goes is much easier when using a checking account. Your cancelled checks serve as receipts and are proof that bills have been paid. Your check register is a picture of your spending pattern—showing where your money went. In the register you record each check written and all deposits made.

Another advantage of a checking account is the fact that it helps you establish a credit rating. It is often easier to open charge accounts, acquire bank credit cards, and secure loans if you have an active checking account that shows you handle money in a responsible manner.

Using checks, instead of cash, is more convenient in most ways, but it still has its drawbacks. To use a check for payment, you must have identification (ID) or proof that you are really the person that you say you are. Many businesses require two forms of identification, and it is helpful if one of them has your picture and your signature. Acceptable forms of ID include a valid driver's license, credit cards, and military service cards. Sometimes, a student activity card is acceptable. There are, however, some businesses that will not accept checks as payment even though the individual has a valid ID.

It is extremely important to remember that the checks one writes must not total more than the amount he/she has deposited in the bank. This is known as **overdrawing** on the account—or **check bouncing**. When a person writes a check for money not on deposit, the check is returned (marked **NSF** or **nonsufficient funds**) and the check writer is charged a fine by the bank (usually between $10.00 and $25.00). If this happens frequently, check writing privileges will be withdrawn by the bank.

Banks also charge for printing and processing your checks. The charge for processing your checks is known as a **service charge**. The service charge is usually deducted from the account each month. On certain types of accounts, some banks do not assess a service charge but, instead, pay interest on the money that is in the account. With this type of account, there might be a three-to-seven-day delay between the time a check is deposited into the account and the time that money can be withdrawn.

Checking for Understanding: Checking Accounts

Note: Do not write in this space unless directed otherwise by your teacher.

(1) List five advantages of using a checking account.

(2) List four disadvantages of using a checking account.

Choosing a Bank

Checking accounts are available at full-service commercial banks, savings and loan institutions, and credit unions. Some of the additional general services to look for when choosing a bank for your checking account are savings accounts, lending services, safety deposit boxes, trust departments, and investment consultants. Specifically, you will want to consider:

1. services you need
2. fees charged
3. types of accounts available
4. whether the bank is a member of the FDIC (a federal agency that insures accounts up to $100,000 against loss)
5. local reputation of the bank
6. convenience of both location and service. Other considerations that affect convenience are availability of night depository, drive-in service, cash machines, and the personnel.

Checking for Understanding: Choosing a Bank

Note: Do not write in this space unless directed otherwise by your teacher.
List six factors to consider when choosing a bank.

Types of Accounts

Accounts vary in a number of ways, including signatures that are required, whether or not they pay interest, and charges for such things as printing checks.

The number of signatures required for writing a valid check varies, depending on the type of account. An **individual** (or single signature) **account** allows you and only you to write checks on the account. Your signature is the only one that will be honored by the bank. If the account is a **joint account,** two or more persons are allowed to write checks on the account using one signature at a time. In case of injury or death of one of the persons on the signature card, a joint account allows the survivor to continue to write checks and transact financial business. It is important to register signatures to be honored in this fashion so that either signature will be valid:

Jim Jones **or** Sue Jones

Many businesses and organizations have **cosignature accounts**. Cosignature accounts require that two or more people sign every check written on the account. This is often used as a safeguard, both to the money handlers and to the account. The signatures would be registered with the bank for a cosignature account in this way:

Jim Jones **and** Sue Jones

A **passbook account** (usually a savings account) requires the person to present an account book to the bank each time money is withdrawn.

Banks can tell you which of their accounts pay interest, what charges there may be, and other matters that affect what it costs to have an account.

Checking for Understanding: Terms or Types of Accounts

Note: Do not write in this space unless directed otherwise by your teacher.

List three types of accounts, based on signatures, and explain the differences.

Opening a Checking Account

The first step in opening a checking account is to go to the bank and complete a **signature card.** The signature card is an agreement between the customer and the bank that states the type of account desired, defines the terms of the account, contains the exact signature(s) that will appear on checks, and authorizes the bank to pay money from your account. This card is used to compare with signatures on checks to be sure the checks are valid. If you sign your full name on the signature card, your full name must appear on every check. The bank will honor only those checks that contain the exact signature appearing on the signature card.

After the signature card is completed and on file in the bank, you may deposit money in the account. The bank will issue temporary checks for you to use until you receive your personalized checks.

Checking for Understanding: Opening an Account

Note: Do not write in this space unless authorized by your teacher. You may copy or redraw the form shown.

Fill out the following signature card using the signature that you plan to use throughout the rest of this assignment:

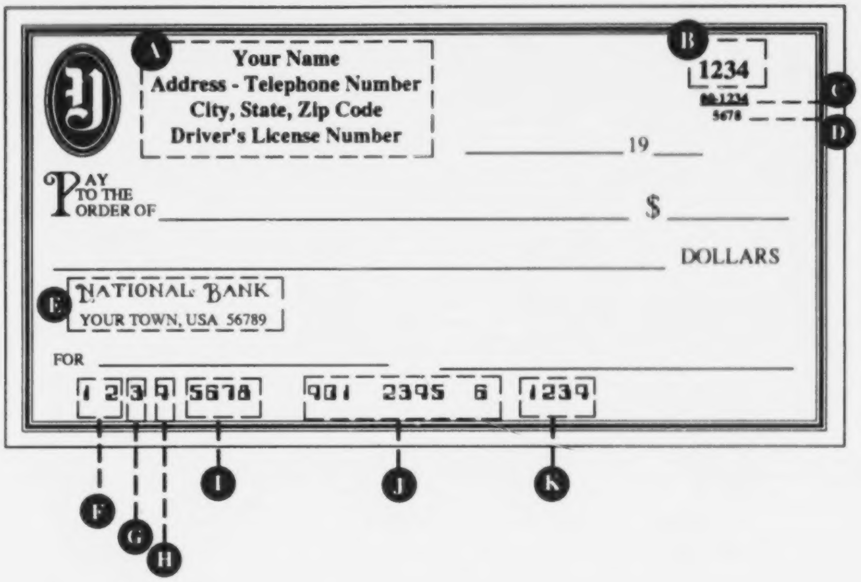
Do not write above this line.	Account Number

Terms of Account	**Signatures Authorized on This Account**
Single name account	1.______________________________
Two or more name account, joint tenancy with right of survivorship	1.______________________________
	2.______________________________
Two or more name account, not joint tenancy with right of survivorship	1.______________________________
	2.______________________________

1. ADDRESS		2. ADDRESS	
CITY/ZIP	HOME PHONE	CITY/ZIP	HOME PHONE
EMPLOYER		EMPLOYER	
CITY	PHONE	CITY	PHONE
BIRTH DATE		BIRTH DATE	
SOCIAL SECURITY NUMBER		SOCIAL SECURITY NUMBER	
MOTHER'S MAIDEN NAME		MOTHER'S MAIDEN NAME	

Using a Checking Account

When you receive your personalized checks, information such as that which follows will be printed on them:

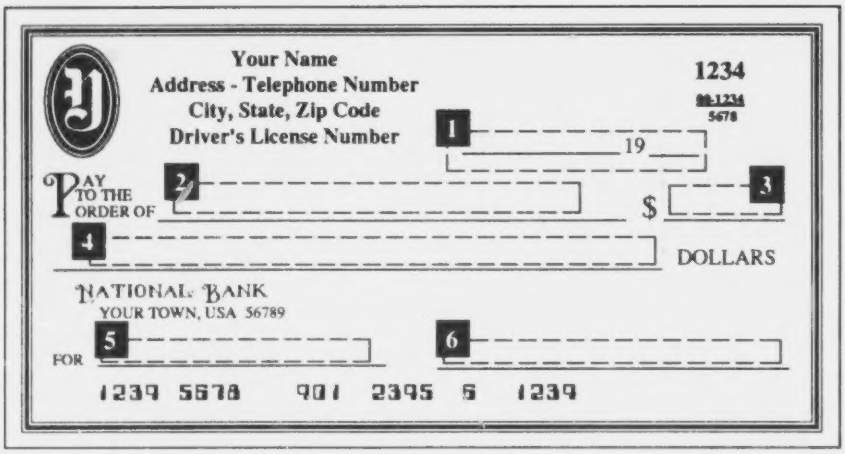

A
Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number
B
1234
C
5678
D
19
PAY TO THE ORDER OF
$
DOLLARS
NATIONAL BANK
YOUR TOWN, USA 56789
E
FOR
1 2 3 4 5678
901 2345 6
1234
F
G
H
I
J
K

A. Name, address, telephone number, and ID number of account holder
B. Check number
C. Bank number assigned by American Bankers Association
D. Federal Reserve number
E. Name and location of your bank
F. Federal Reserve area
G. City
H. Length of time in days to clear check
I. American Bankers Association number
J. Your account number
K. Check number

After your account is opened, and you have received your checks, you will be ready to start writing checks.

1. **Never** use pencil to write checks—**always** write checks using ink or a typewriter.
2. If you make a mistake, tear up the check and start over. **Do not alter** your check. Be sure to indicate on your stub or register that the check has been voided.
3. Be sure payee and amount are written in **before** signing a check.
4. Use checks **promptly**. Many banks honor checks for only 30 days after the date issued.

Basically, you will need to complete six pieces of information. Writing checks is not a difficult task, but there are precautions to be observed. Let us look at the parts of a check and discuss some of these precautions.



Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
80-1234
5678

1 ____ 19 ____

PAY TO THE ORDER OF 2 ____ $ 3 ____

4 ____ DOLLARS

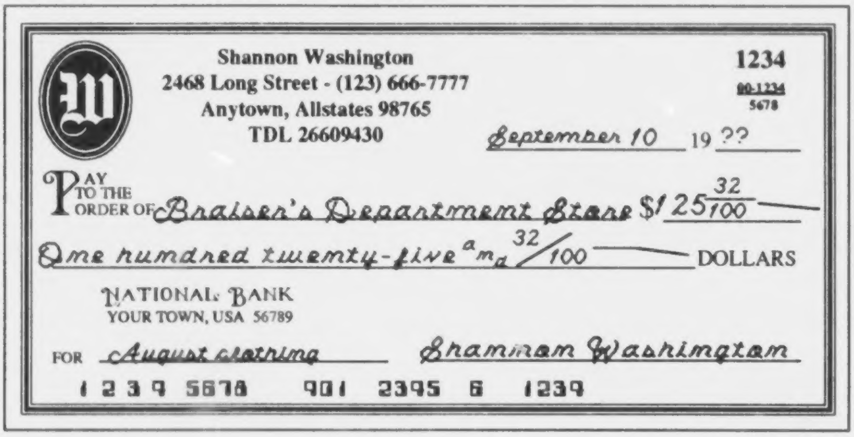
NATIONAL BANK
YOUR TOWN, USA 56789

FOR 5 ____ 6 ____

1234 5678 901 2345 6 1234

1. The current date should be entered here. Do not date checks with future dates. Checks dated with future dates are called **postdated** checks, and this should not be done. It *is* acceptable to date checks on holidays and Sundays.
2. Write the name of the person or company to whom the check is being paid (the payee). Avoid writing checks to "cash," because if lost they can be cashed by anyone.
3. Write the amount of the check in numbers, starting as close to the dollar sign as possible so that additional numbers cannot be added later. If the written amount and the number amount disagree, the bank will honor the written amount.
4. Starting as close to the left edge of the check as possible, write the amount in words and cents (50/100). Do not leave any space to add numbers.
5. Write in the name of the item for which the check was written.
6. Sign your name exactly as you signed on the signature card when you opened your account. The person signing the check is the **payor**.

Below you can examine a check that has been correctly written. Notice that no room has been left so that the amount of the check cannot be altered.



Shannon Washington
2468 Long Street - (123) 666-7777
Anytown, Allstates 98765
TDL 26609430

1234
80-1234
5678

September 10 19 ??

PAY TO THE ORDER OF Braiser's Department Store $125 32/100

One hundred twenty-five and 32/100 DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR August clothing Shannon Washington

1234 5678 901 2345 6 1234

Checking for Understanding: Using a Checking Account

Note: Do not write on the blank checks unless directed to by your teacher. They may be redrawn or photocopied for practicing writing checks.

Write three checks using your own information and identification.

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

__________ 19______

PAY TO THE ORDER OF ______________________________ $ __________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ______________ ______________________

1234 5678 901 2345 6 1234

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

__________ 19______

PAY TO THE ORDER OF ______________________________ $ __________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ______________ ______________________

1234 5678 901 2345 6 1234

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

__________ 19______

PAY TO THE ORDER OF ______________________________ $ __________

____ DOLLARS

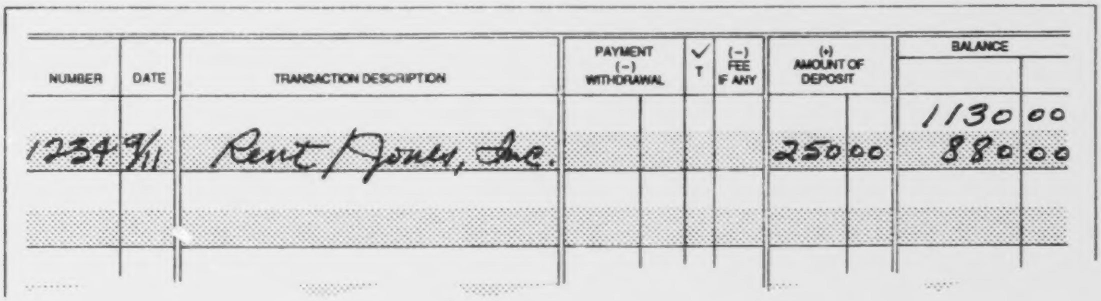
NATIONAL BANK
YOUR TOWN, USA 56789

FOR ______________ ______________________

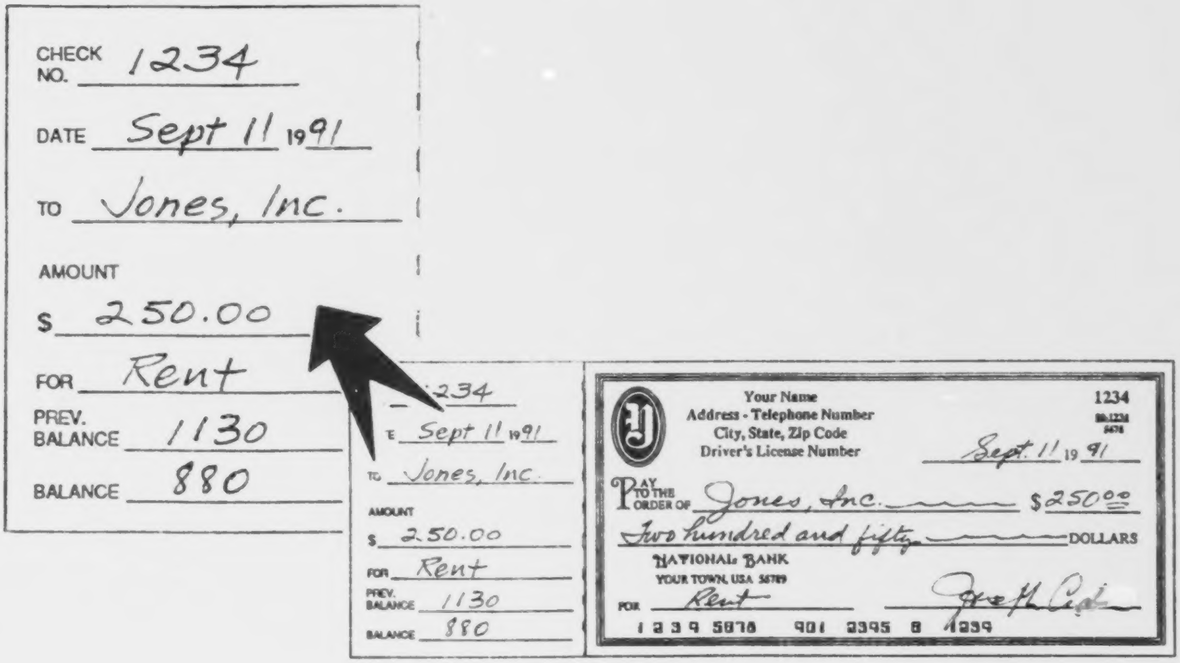
1234 5678 901 2345 6 1234

Keeping Up with How Much You Spend

Many checks come with a carbonized paper behind every check. This is a convenient type of check to use, because the amount of the check, to whom the check was written, and what the payment was for are automatically recorded. Often, however, there is an additional fee for this type of check. Other types of checks include a check register or a check stub. Each time a check is written, the important information must be recorded separately and the amount spent subtracted from the balance so that you can know how much is left in your account.



NUMBER	DATE	TRANSACTION DESCRIPTION	PAYMENT (–) WITHDRAWAL		✓ T	(–) FEE IF ANY	(+) AMOUNT OF DEPOSIT		BALANCE	
									1130	00
1234	9/11	Rent / Jones, Inc.					250	00	880	00



CHECK NO. 1234

DATE Sept 11 1991

TO Jones, Inc.

AMOUNT

$ 250.00

FOR Rent

PREV. BALANCE 1130

BALANCE 880

234

E Sept 11 1991

TO Jones, Inc.

AMOUNT

$ 250.00

FOR Rent

PREV. BALANCE 1130

BALANCE 880

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234

Sept. 11 1991

PAY TO THE ORDER OF Jones, Inc. $250.00

Two hundred and fifty DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

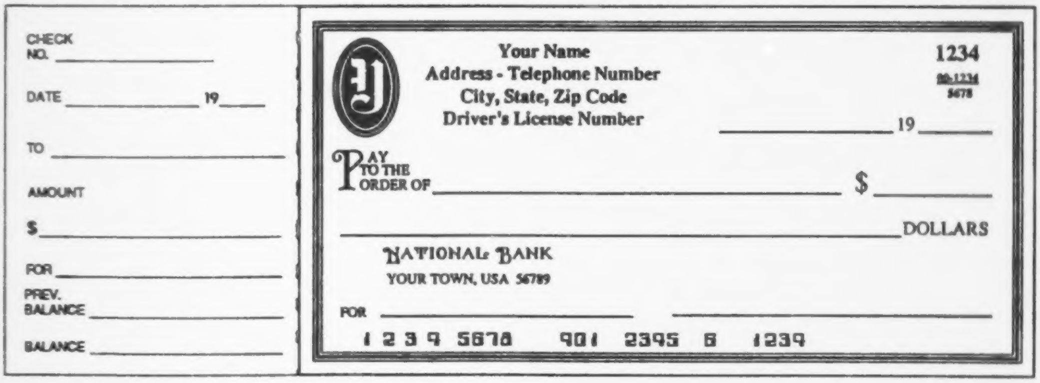
FOR Rent

1 2 3 9 5878 901 2395 8 1239

Checking for Understanding: Keeping Up with How Much You Spend

Note: Do not write in this space unless directed otherwise. You may copy or redraw the check for use.

On April 6, 1991, Jo bought a pair of wind shorts from the Track and Field Shop. The shorts cost $22.98. On the blank check below, demonstrate the way Jo should have written the check, then subtract the amount from the check register to find the new balance.



CHECK NO. ____________

DATE ____________ 19____

TO ____________

AMOUNT

$ ____________

FOR ____________

PREV. BALANCE ____________

BALANCE ____________

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234

____________ 19______

PAY TO THE ORDER OF ____________________ $ ________

____________________________ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ____________ ____________

1239 5678 901 2395 8 1239

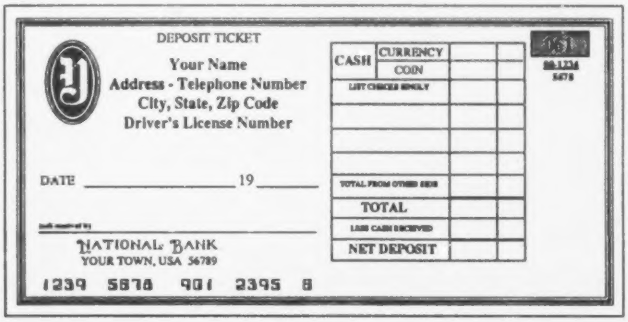
Where Your Check Goes

The typical check follows this path:

1. First, write and sign the check.
2. Then, deliver or mail the check to the "payee" (the person receiving payment).
3. The payee either cashes the check or deposits it in his or her account.
4. The payee's bank sends the check to the nearest Federal Reserve bank or to the Federal Reserve bank in your district to be "cleared." This means the money is credited to the payee's bank and taken from your bank.
5. The check is sent to your bank, where the amount is deducted from your account.
6. You receive a statement of the account from your bank (usually once each month) with the checks (or a list of the checks) that you have written and that have cleared the bank (these are called **cancelled checks**).

Depositing Your Money

Below is an example of a typical **deposit "slip"** or **"ticket."** The total currency (or paper money) being deposited is entered in one place, total coins in another. Each check being deposited is listed separately. The deposit slip is presented with the money being deposited at the bank. The bank will issue a receipt for the money deposited.



DEPOSIT TICKET

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

DATE ____________ 19______

NATIONAL BANK
YOUR TOWN, USA 56789

1239 5678 901 2395 8

CASH	CURRENCY		
	COIN		
LIST CHECKS SINGLY			
TOTAL FROM OTHER SIDE			
TOTAL			
LESS CASH RECEIVED			
NET DEPOSIT			

Reconciling Your Bank Statement to Your Checkbook

Once each month your bank will send you a statement. A **bank statement** is a record of all business transacted within your account during a monthlong period. The balance at the beginning of the month is shown, all checks that have cleared the bank are listed (check numbers and amounts), all fees are listed, and an end-of-month balance is shown. On the back of most statements, you will find a form that will help you reconcile your statement to your checkbook. This means that you will be sure that your records and the bank's records are the same and that the balance in your checkbook is accurate. The general procedure for reconciling your bank statement is:

1. Put your checks in order by number.
2. On your register, stub, or carbon copy, check off (√) the checks that have cleared and are included in the statement.
3. Subtract any fees or charges listed on your statement from the balance in your checkbook.
4. Total all checks that are not checked off. These checks that have not cleared are called **outstanding checks**. These checks have not been charged against your account by the bank, so they have not been subtracted out of the balance shown on your statement. These checks have been written, though, and the money has been spent.
5. Subtract the total of the outstanding checks from the balance shown on your statement to get a new balance.
6. If you have made deposits that are not listed on your statement, add them to the new balance on your statement.
7. At this point, the new balance figured from your statement and the balance shown in your checkbook should agree.

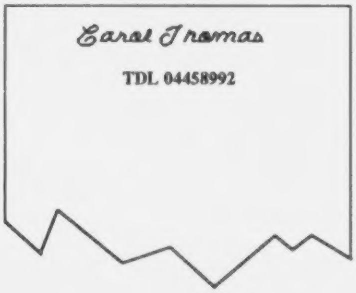
If they do not agree:

1. Check your arithmetic carefully, in your checkbook and on your statement.
2. If you still can't get the same balance after checking all of your arithmetic, call your bank. Be ready to give them your name and account number to get assistance.

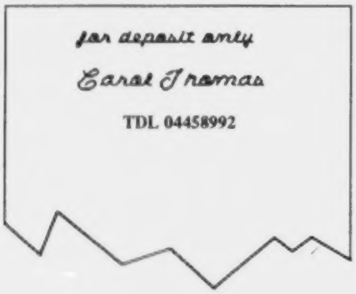
Endorsements

Before a check can be cashed, an endorsement by the payee must be placed on the back. An **endorsement** is the signature of the payee on the back side of the check. Some businesses and banks require that the endorser include an ID number with the endorsement. If you are given a check in payment, you must endorse it before it can be cashed. The endorsement indicates that the payee is ready to turn the check into money. There are basically four kinds of endorsements: blank, restrictive, corrective, and transfer endorsements.

1. A **blank endorsement** is a simple signature of the payee on the back of the check. A blank endorsement makes the check as negotiable as cash. This means anyone can trade the endorsed check for an item of like value or for cash.



2. A **restrictive endorsement** means that instructions for how the check can be used are included along with the signature on the back of the check. "For deposit only" is a common restrictive endorsement when a check is to be deposited. With this endorsement, the check is of value only if it is being deposited in the payee's account.

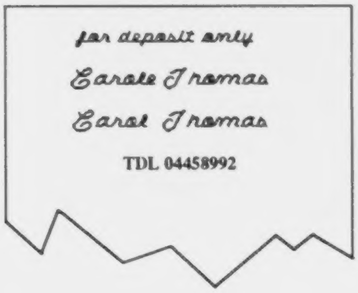


for deposit only

Carol Thomas

TDL 04458992

3. A **corrective endorsement** is used when the payee's name is misspelled on the front of the check. The payee should endorse the back of the check two times. The first signature should be as it appears spelled incorrectly on the front of the check. The second signature should be correctly spelled.



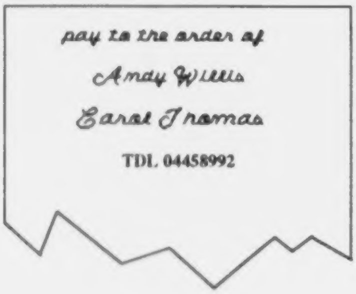
for deposit only

Carole Thomas

Carol Thomas

TDL 04458992

4. A **transfer endorsement** transfers ownership of the check from the payee to another person. It should read "pay to the order of (name of new owner)," followed by the payee's signature.



pay to the order of

Andy Willis

Carol Thomas

TDL 04458992

Checking for Understanding: Endorsements

Do not write in this space unless directed otherwise by your teacher. The figures may be copied or redrawn for use.

On the back sides of the checks below, write examples of a blank endorsement, a restrictive endorsement, a corrective endorsement, and a transfer endorsement.

Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

bank statement
cancelled checks
check
checking account
cosignature account
endorsement
FDIC
ID
individual account
joint account
negotiable
outstanding checks
overdrawn
passbook account
payee
payor
postdated check
reconcile
service charge
signature card
stop payment

ASSIGNMENT 34

Loan Applications

Objectives: When this assignment has been completed, you should be able to—

1. *define the following terms:* secured loan, unsecured loan, collateral, installment loan, principal, interest, stated interest rate, effective interest rate, simple interest rate, commercial full-service banks, finance companies, savings and loan associations, *and* credit unions;
2. *discuss information needed on a loan application;*
3. *compare the advantages and disadvantages of commercial full-service banks, finance companies, savings and loan associations, and credit unions; and*
4. *compute effective interest when given appropriate information.*

Over the last two decades, the use of credit has become a "way of life" in America. Consumers differ in the extent to which they use credit, but the reasons for using credit "boil down" to four main reasons:

1. Convenience of possession utility—being able to use the product or service while we are paying for it.
2. Savings—at times when cash is "short," we borrow against future earnings to be able to take advantage of reduced prices.
3. Preferred treatment—companies often give preferred treatment to their credit customers. Special prices will periodically be offered or these customers will be notified of promotions or sales before they are advertised to the general public.
4. Record keeping—credit statements and cancelled payment checks are convenient aids to record keeping. If statements are systematically kept and recorded, an overall picture of your spending patterns will result.

One of the patterns to look for is the amount of interest that is being paid each year in relation to the advantages gained. *Credit is not free.* It is important to examine carefully what the advantages mentioned above are costing you. It may be more than you think.

Another danger in credit is the ease with which people can become accustomed to living "beyond their means," or habitually spending money they do not yet have. As long as things go as planned, this method serves a person well. However, a sudden illness, an accident, or an unexpected expense can cause financial disaster if you are already "up to your ears" in debt.

This assignment deals with borrowing money for large purchases and the wise use of credit—looking closely at interest rates to be sure you get the best rates available when you do use credit.

Types of Loans

Loans today are provided in two ways. One way is to make a specific loan for a specific item, such as a car. Another is to set up a credit account such as those offered by credit card companies and major retailers. In the second case, you can borrow up to a stated limit at any one time and pay interest on what you owe at a specific time. Either way, you pay for the loan and should shop for the best deal you can get.

Loans involve two kinds of payments: principal and interest. The **principal** is the actual amount of money borrowed. **Interest** is the money paid, in addition to the amount borrowed, for the privilege of using someone else's money.

Consumer loans usually fall into two categories, simple interest loans and installment loans. With **simple interest loans,** the borrower pays back a "lump sum" (both principal and interest) at the end of a specified time period. The borrower gets to use all the money for the entire period.

Installment loans require that the borrower pay both principal and interest together in periodic payments (usually monthly payments). The borrower is not using all the initial amount during the time of the loan. This can lead to confusion as to what is being paid for the loan.

Both simple interest and installment loans can be either secured loans or unsecured loans. **Unsecured loans** are backed only by the borrower's good name and her or his word that the money will be repaid. **Secured loans** are backed by something of value that the lending institution can claim if the borrower does not repay the loan. This item of value is known as **collateral**. For obvious reasons, secured loans can usually be found at lower interest rates than unsecured loans. This is because the lender does not assume the same amount of risk.

Lending Institutions

Another borrowing decision involves selecting an institution. The four major types of lending institutions are commercial full-service banks, finance companies, savings and loan associations, and credit unions.

Commercial full-service banks offer a variety of financial services, including those provided by a loan department. Most people think of banks when they think of borrowing money. In fact, banks generally do not loan money unless the risk of loss is very low. Many banks will not approve a loan unless you have a savings and/or checking account with them. Unless you agree to leave enough money in one of those accounts to cover the loan, the interest rate can be fairly high.

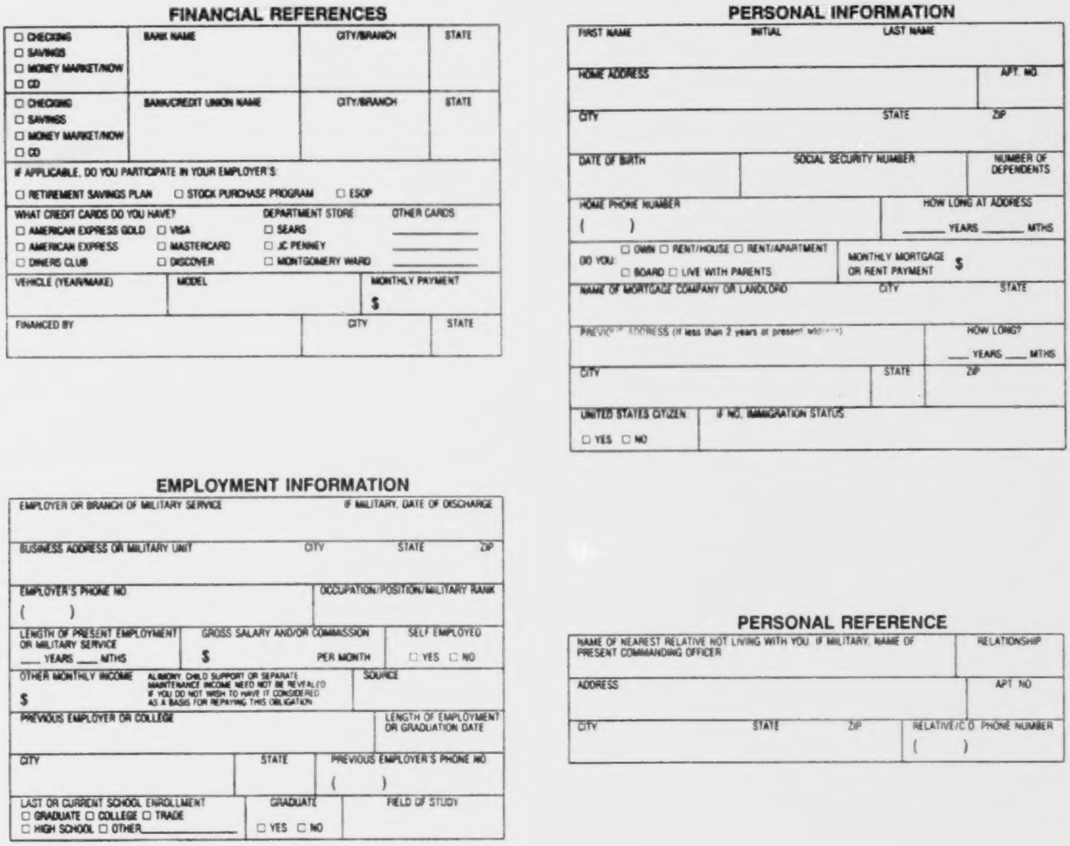
Finance companies are independent commercial financial institutions that deal in higher risk loans. They tend to approve high-risk loans that banks turn down. Because their risk of loss is greater, their interest rates are usually rather high.

Savings and loan associations specialize in real estate loans, called mortgages. They will make other small loans, but they usually require collateral. Their rates are comparable to those of banks.

Credit unions are financial institutions that are actually owned by their customers. They are usually formed by members of a profession or by employees of a particular company. Because their membership is restricted, their loss rate is low. Since the member's employer is accessible to them, credit unions will often make small personal loans with just the member's signature. Other, secured loans, will have a lower interest rate. Overall, credit unions' interest rates are lower than those of other lending institutions.

Loan Applications

There are about as many different forms for loan applications as there are companies and lending institutions. There is some very basic information, however, that you should have available and be prepared to give when you apply for a loan. The following sections of one application are typical of what you may need to know.



FINANCIAL REFERENCES

☐ CHECKING ☐ SAVINGS ☐ MONEY MARKET/NOW ☐ CD	BANK NAME	CITY/BRANCH	STATE
☐ CHECKING ☐ SAVINGS ☐ MONEY MARKET/NOW ☐ CD	BANK/CREDIT UNION NAME	CITY/BRANCH	STATE

IF APPLICABLE, DO YOU PARTICIPATE IN YOUR EMPLOYER'S:
☐ RETIREMENT SAVINGS PLAN ☐ STOCK PURCHASE PROGRAM ☐ ESOP

WHAT CREDIT CARDS DO YOU HAVE?		DEPARTMENT STORE	OTHER CARDS
☐ AMERICAN EXPRESS GOLD	☐ VISA	☐ SEARS	____________
☐ AMERICAN EXPRESS	☐ MASTERCARD	☐ JC PENNEY	____________
☐ DINERS CLUB	☐ DISCOVER	☐ MONTGOMERY WARD	____________

VEHICLE (YEAR/MAKE) | MODEL | MONTHLY PAYMENT $
FINANCED BY | CITY | STATE

PERSONAL INFORMATION

FIRST NAME | INITIAL | LAST NAME
HOME ADDRESS | APT. NO.
CITY | STATE | ZIP
DATE OF BIRTH | SOCIAL SECURITY NUMBER | NUMBER OF DEPENDENTS
HOME PHONE NUMBER ( ) | HOW LONG AT ADDRESS ______ YEARS ______ MTHS
DO YOU: ☐ OWN ☐ RENT/HOUSE ☐ RENT/APARTMENT ☐ BOARD ☐ LIVE WITH PARENTS | MONTHLY MORTGAGE OR RENT PAYMENT $
NAME OF MORTGAGE COMPANY OR LANDLORD | CITY | STATE
PREVIOUS ADDRESS (if less than 2 years at present address) | HOW LONG? ___ YEARS ___ MTHS
CITY | STATE | ZIP
UNITED STATES CITIZEN ☐ YES ☐ NO | IF NO, IMMIGRATION STATUS

EMPLOYMENT INFORMATION

EMPLOYER OR BRANCH OF MILITARY SERVICE | IF MILITARY, DATE OF DISCHARGE
BUSINESS ADDRESS OR MILITARY UNIT | CITY | STATE | ZIP
EMPLOYER'S PHONE NO ( ) | OCCUPATION/POSITION/MILITARY RANK
LENGTH OF PRESENT EMPLOYMENT OR MILITARY SERVICE ___ YEARS ___ MTHS | GROSS SALARY AND/OR COMMISSION $ PER MONTH | SELF EMPLOYED ☐ YES ☐ NO
OTHER MONTHLY INCOME $ | ALIMONY, CHILD SUPPORT OR SEPARATE MAINTENANCE INCOME NEED NOT BE REVEALED IF YOU DO NOT WISH TO HAVE IT CONSIDERED AS A BASIS FOR REPAYING THIS OBLIGATION | SOURCE
PREVIOUS EMPLOYER OR COLLEGE | LENGTH OF EMPLOYMENT OR GRADUATION DATE
CITY | STATE | PREVIOUS EMPLOYER'S PHONE NO ( )
LAST OR CURRENT SCHOOL ENROLLMENT ☐ GRADUATE ☐ COLLEGE ☐ TRADE ☐ HIGH SCHOOL ☐ OTHER__________ | GRADUATE ☐ YES ☐ NO | FIELD OF STUDY

PERSONAL REFERENCE

NAME OF NEAREST RELATIVE NOT LIVING WITH YOU. IF MILITARY, NAME OF PRESENT COMMANDING OFFICER | RELATIONSHIP
ADDRESS | APT NO
CITY | STATE | ZIP | RELATIVE/C.O. PHONE NUMBER ( )

Figure 1

If you are going to apply for a loan, be prepared to offer the following:

1. Your Social Security card
2. A form of identification bearing your picture and your signature
3. Information about employment:
    a. The amount of your yearly wage
    b. Proof of employment. (A recent paycheck stub will usually be sufficient.)
    c. Name, address, and phone number of employer and name of your immediate supervisor
    d. Length of employment
4. Account numbers for bank credit cards or any other credit accounts that you have
5. How much of your monthly salary is obligated (including rent, utilities, cable TV, etc.)
6. At least three each of credit references and character references
7. An explanation of how the loan is to be spent

Interest Rates

Since the Truth-in-Lending Act was passed in 1980, lenders have been required to state in loan applications and in loan agreements what they charge for lending money, both as a total dollar amount and as an annual percentage rate. It is important to inspect both amounts. The dollar total for the year may look better than it is until you check the **annual percentage rate**, or **APR**. A lender may state an interest based on the simple interest equation, when it should be based on the effective interest equation. This latter equation is also called the *annual interest rate equation.*

For example, a credit agreement for purchasing a $1,000.00 stereo might state that the total interest to be paid is $80.00. If you were to make only one payment, and that at the end of the year, that would be a fairly low rate of 0.08, or 8%. However, the interest rate is much higher if you make 12 equal monthly payments—because you don't get to use all the money the entire year.

This is the **simple interest equation** that would be applied to making one payment, at the end of the year:

amount of principal × rate as decimal fraction × years borrowed = **simple interest in $**
or
$1,000 × 0.08 = $80.00

It can also be restated as:

$$\textbf{rate as a decimal fraction} = \frac{\text{interest paid in \$}}{\text{amount of principal} \times \text{years borrowed}}$$

Because you are paying off the loan all during the year, you have to figure the percentage actually paid by using the **effective interest rate** equation to find the actual rate based on the total amount in dollars you pay for an installment loan. It may also be called the **annual interest rate,** or the APR.

This is the **effective interest rate** equation:

$$\text{effective rate} = \frac{2 \times \text{annual number of payments} \times \text{interest in \$}}{(\text{total number of payments} + 1) \times \text{principal in \$}}$$

If you pay $80.00 to borrow $1,000.00 for a year, but pay it off in 12 equal payments, then this is the interest rate you are actually paying—the effective interest rate:

$$\frac{2 \times 12 \times \$80}{(12+1) \times \$1{,}000} = \frac{\$1{,}920}{\$13{,}000} = 0.1477 \text{ or } 14.77\%$$

As you can see, there is a significant difference between the figuring for simple interest rate and the figuring for effective interest rate.

In some types of loans you will also see a monthly percentage rate, such as 1 1/2% on the unpaid balance. That also has to be converted to an APR, which requires still a different equation but which can be approximated by multiplying the monthly rate by 12 months.

Checking for Understanding: Determining Effective Interest Rate

Note: Do not write in this space unless directed otherwise by your teacher.

Michael has borrowed $300.00 for 12 months. He will make one payment at the end of the year, and the interest paid at that time will be $36.00 total. What equation is used? What is the actual interest rate he is paying?

Suppose Michael had borrowed $300.00 for 12 months, to be repaid in monthly installments. His total interest paid for the year is still $36.00. What equation should be used? What percent is he actually paying?

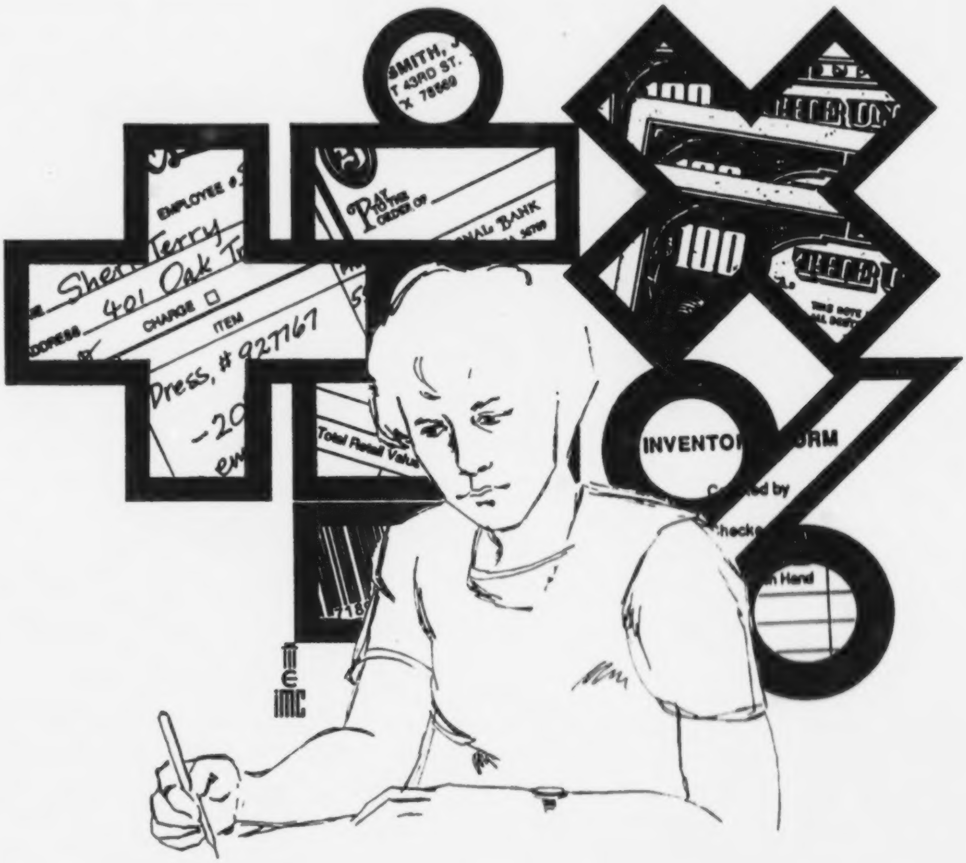
Technical Learning Concepts

Note: Do not write in this space unless directed otherwise by your teacher. Define the following terms.

APR, or *annual percentage rate*
collateral
commercial full-service banks
credit unions
effective interest rate
finance companies
installment loan
interest
principal
savings and loan associations
secured loan
simple interest rate
stated interest rate
unsecured loan

MATHEMATICS: ESSENTIAL TO MARKETING

Teacher's Guide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Sherri Terry
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PAY TO THE ORDER OF
NAL BANK
Total Retail Value
100
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Counted by
Checked
On Hand
MEC
IMC

Mathematics: Essential to Marketing

Teacher's Guide

By

Betty G. Helton
and Jennie Griffin

Published by

The University of Texas at Austin
Extension Instruction and Materials Center
Division of Continuing Education

Developed under a contract with

Texas Education Agency
Austin, Texas

1991

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Printed in the United States of America

Brand names, company names, trademarks, or other identifying symbols appearing in the illustrations and/or text are used to clarify and identify and do not constitute a recommendation or endorsement by the authors or the publisher.

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Additional copies may be ordered from:

THE UNIVERSITY OF TEXAS AT AUSTIN
Extension Instruction and Materials Center
P.O. Box 7218
Austin, TX 78713-7218
512-471-7716 or 1-800-252-3461 (within Texas)
FAX 512-471-7853

Stock Number DE 116 C

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COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964: EXECUTIVE ORDERS 11246 and 11375; TITLE IX 1973 EDUCATION AMENDMENTS: REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulation by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs of activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

Foreword to the Student's Manual

This is the most complete, versatile, and practical mathematics publication yet published by the Extension Instruction and Materials Center (EIMC). Those qualities are present because it was developed by two Marketing Education teachers, Jennie Griffin of Lee High School in San Antonio and Betty Helton of McCallum High School in Austin. They were determined that in one place students would be able to locate all the information about mathematics which their years of experience had shown to be useful to a career in marketing. The 34 assignments in the manual make it possible for students to do everything from reviewing their basic math skills to analyzing documents which are used by marketing managers.

The first two units are on arithmetic fundamentals and their application. Students will need to spend more or less time on these depending on what they already know, but in any case a review will make the rest of the manual easier.

After that, there are units on the mathematics, concepts, and procedures required for common functions performed by employees at the beginning levels in marketing. These include cashiering, inventory procedures, and working with invoices.

As the employee moves up the ladder in a career, it becomes important to be able to compute employee earnings, formulate purchase plans, and carry out the mathematics required to purchase merchandise wisely. Also, at higher levels, it is crucial to know how retail prices are set and how they affect profit. By learning these facts now a person will be preparing for advancement.

At a still higher level, going all the way up to the owner or manager of the store, it is vital to be able to make and analyze income statements and balance sheets, and to analyze graphs and charts that help in understanding what is happening in a business.

At all levels, personal mathematics are crucial to personal success. Two other subjects covered are checking accounts and loan applications.

The mathematics involved are relatively simple. It is necessary only to be able to add, subtract, multiply, and divide. Procedures to be learned are expressed usually as equations. That is—

Markup + cost of merchandise = retail price

These equations also lead to statements, such as "the markup is added to the cost of the merchandise to get the retail price." The statements are clearly related to word problems in the assignments. For example, "If the markup is $5.00 and the cost is $10.00, what is the retail price in dollars?"

Much of the important information revolves around knowing why each mathematical procedure is important, and who needs to be able to do the equation and use the results. For example, if you divide the markup in dollars by the retail price in dollars, you get the markup percentage. That figure is important because management may tell its buyers they have to get a certain markup percentage in order to pay expenses and make a profit.

In many ways, this manual is as much about terms and concepts as it is about mathematics. Many terms and concepts must be learned. These are emphasized at the beginning of some assignments, and at the end of others under the heading of "Technical Learning Concepts."

Assignments are organized to encourage you to move slowly and carefully and make certain you are learning. They start with objectives, so you know what you should achieve. Then there are explanations of the concepts and terms to be learned. Where there are mathematical procedures to learn, examples are given.

At several places in each assignment are subsections called "Checking for Understanding." These give you a chance to decide if you have learned what is important before you go on. You might be asked to do a mathematical procedure, or answer a question. If you are successful, you go on. If you fail, you study the material over. Answers to "Checking for Understanding" should not be written in this manual, but elsewhere. Unless directed otherwise by your teacher, do not write in this manual.

In addition, your teacher will have two sets of activities to do to make it even more certain that you succeed. The first is called a *guided practice*, and for it you will probably be getting help. The second is called *independent practice*, and is like soloing—you're on your own, but you've already had enough practice where you should do just fine.

The terms and mathematical procedures covered in this manual have been checked against publications used by marketers themselves. It is important to master both terms and procedures because they are required in specific jobs as a person progresses in a marketing career.

Jim Cockrum
Marketing Education Curriculum Specialist

Acknowledgments

Special thanks for their advice on this manual should go to these members of the EIMC Project Advisory Committee for 1989-90—John E. Lutz III, Lutz Realty, Fort Worth, and Dr. Marcy McComas Norwood, University of Houston, College of Education. They served on the small group which gave special attention to this product. In addition, other members of the Project Advisory Committee contributed insight and ideas.

Credit is also due for this publication—as for other EIMC materials—to the Project Advisory Committee as a whole, which met twice and provided other contributions through the year. It includes these other members: Janie Anaya, of McAllen Memorial High School; Laurelyn Carlisle, teacher educator at Southwest Texas State University in San Marcos; Suzanne Faught of Lampasas High School; Kris Gossom of Wichita Falls High School; Dr. Jerry Moorman, teacher educator at the University of North Texas, Denton; Al Mozisek of Churchill High School in San Antonio; and Leigh Swanson, manager of Talbot's at the Arboretum in Austin.

Participating with the PAC group were Berry Sullivan, Emmett Eary, and Ward McCain, of the Marketing Education staff at the Texas Education Agency. Dr. Barbara Selke-Kern, Director of Materials Development at EIMC, has also helped make this publication possible.

A number of ideas and recommendations came from a meeting of the Marketing Education Curriculum Advisory Task Force in San Antonio on August 9, 1989. In addition to most of the people already mentioned, those present included Betty Blair of Dumas High School; Sheryl Burlison of Bryan High School; Joseph A. Gonzales of Worthing High School, Houston; Bob Hettenhausen of Johnston High School, Austin; Neva Irwin of Gregory-Portland High School; Rhonda McGinnis of Tivy High School, Kerrville; Adell Morton of Allen High School; Sue Richmond of Berkner High School, Richardson; Gabriela Salomon-Reyes of Del Valle High School, El Paso; Allene Schmitt of Bellville High School; Nelda Shipp of Mineola High School; Tony Valek of MacArthur High School, San Antonio; and Carolyn Willig of McCullough and Oak Ridge High Schools, Conroe.

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How to Use This Material

The Foreword in the student's manual, which appears both in that book and in this guide, covers the rationale behind the selection and arrangement of content for *Mathematics: Essential to Marketing*. It also explains to students how they can study most effectively. By reading the Foreword, a teacher can gain insight into what the student is doing and expecting. In particular, it tells how "Checking for Understanding" exercises in each assignment help, and it shows the relationships between terms and procedures, and equations and word problems.

This guide is arranged to make it easier to help the student in his or her individual efforts, but it also has features to assist the teacher in doing professional tasks, such as developing lesson plans that follow the new lesson planning sequence.

A Lesson Planning Sheet developed using Assignment 17 is on pages 3-4. It demonstrates how a teacher can use this assignment, and others, in developing such a plan.

Teaching objectives and **learning experiences** are drawn from the objectives for each assignment. The **anticipatory set/focus** sets up an example problem based on specific content. **Explanation/modeling** features the teaching points to be made. **Checking for Understanding** refers briefly to what has been covered. In the assignment in the student's manual, there will be a **Checking for Understanding** exercise after each explanation and example of a topic being covered. Students are expected to do each of these before moving on, either writing their results some place other than in the manual or otherwise indicating their progress. Each assignment has a **Guided Practice** and an **Independent Practice** exercise. However, these are provided in this guide rather than in the student's manual, to give the teacher control over their administration. The remainder of the lesson plan shown has not been done, but would relate to assignment content.

For economy and flexibility, this guide has these features:

1. Blank **Pretests** and **Posttests** are provided. These can be copied and used to determine what the student already knows, then what has been learned.
2. Blank forms to be used by students in doing the **Checking for Understanding exercises** are also provided. Placing them in the guide is meant to avoid students' writing in the manuals, making them reusable. Teachers should also feel free to copy these forms.
3. Blank **Guided Practice** and **Independent Practice** forms are provided, again for copying as needed.
4. A blank **Lesson Planning Sheet** is provided (on pages 5-6) to be copied when making lesson plans.

For easier use, answer keys are provided for all the forms listed above—pretests, posttests, checking for understanding exercises, guided practice exercises, and independent practice exercises. The keys are in the same format as the blank forms to be completed by students, to make it easier to locate and check answers. Answers to mathematical problems show how problems are worked, as well as the specific answers.

For consistency, the problems follow the rule of rounding up any number that does not come out even, even if it is only one digit. For example, 0.121 would be rounded up to become 0.13 in the answer. It is pointed out in the manual that actual rules for rounding may differ with situations, and teachers may wish to address this issue in their instruction, particularly if competition has other rules.

LESSON PLANNING SHEET

Subject: Employee Earnings

Source: *Mathematics: Essential to Marketing*, UT, Unit VI, Assg. 17

Unit: Computing Wages

EE #: ME I: B-11, b & Entrep: H-6 **FILE #**

TEACHING OBJECTIVES: The student will be able to:	**LEARNING EXPERIENCES:** The student will have the opportunity to:
1. define the following terms: wages, *hour-rate, piece-rate, gross pay, and net pay;*	1. match terms to definitions;
2. compute wages when the number of hours worked and the hourly rate are given;	2. complete problems with number of hours and rate stated;
3. compute piece-rate wages with units completed and the wages per unit given;	3. complete problems with numbers of units and unit rate stated;
4. compute overtime wages by either of the two methods presented; and	4. compute problems designed to integrate regular wages and overtime wages to find gross (total) wages;
5. interpret information from time cards to compute wages.	5. read sample time cards and compute wages earned from times stated on those cards.

ANTICIPATORY SET/FOCUS: (2a-communicates learning expectations, 3a-secures students' attention, 4a/6a-begins inst promptly/with appropriate introduction, 6c-related content to prior/future learning, 8a-related content to student interest/ experience, 9d-establishes rapport.)

__x__ **Focus Attention**
_____ **Provide Practice**
__x__ **Diagnostic**

Ask students whether they would rather work for $5.00/per hour with time-and-a-half over 40 hours or for a set amount of $230.00 per week based on a 45-hour week. Allow time for decision, then figure each.

EXPLANATION/MODELING: (1b-interacts w/students, 2d/8c-reinforces, 6a-begins w/appropriate activity, 6b-appropriate sequence, 6d-definition concepts/description of skills, 6e-elaboration/critical attributes, 6f-stresses generalization/principle/ rule, 7b-explains clearly, 7c-stresses important points/dimensions of concept, 7d, 7e-uses correct grammar/language, 8b, 8d-emphasizes importance/challenges.)

1. Understanding the different types of employee compensation is important when considering advantages and disadvantages of present and future employment.
    a. Amount of pay is affected.
    b. Stability of pay is affected.
    c. Flexibility of potential earnings is affected.
    d. It can determine how company policy affects the individual worker.

2. *Wages* are defined as money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis.
    a. hourly wages—a set amount paid per hour
    b. daily wages—a set amount paid for a day's work (usually based on an eight-hour day)
    c. piece-rate wages—based on the number of units completed

3. Overtime pay is usually defined as all hours worked over the prescribed wage period.
    a. Hourly rate is usually based on a forty-hour week.
    b. Daily rate is usually based on an eight-hour day at a predetermined rate per hour.
    c. Overtime (OT) is generally 1-1/2 times the hourly rate for all hours worked over the forty-hour week or the eight-hour day.

4. Gross pay is the total amount of pay.
   a. It includes all regular wages earned and all overtime, added together.
   b. It is the amount before taxes and other deductions are taken out.

5. Time cards are an official record of hours worked for individual employees.
   a. They are used for "punching in" and "punching out."
   b. To punch in for another employee is considered a termination offense in most companies.
   c. Time on time cards should be converted to "military time" before computing hours.

CHECKING FOR UNDERSTANDING: (1c-solicits student participation, 2b-monitors students' performances, 2c-solicits response/demo for assessment, 2d-reinforces correct responses, 7e-clarifies student misunderstanding, 9a-avoids sarcasm.)

Lecture/discussion/question session covering the critical attributes listed above

GUIDED PRACTICE: (2c-solicits response/demonstration from specific students for assessment, 3c-clear administrative directions, 1f/4b-implements appropriate sequence of activities, 4d-maintains focus, 9b,d-maintains courtesy/supportive environment.)

INDEPENDENT PRACTICE: (2b-monitors students' performance, 4b-implements appropriate sequence of activities, 4e-keeps students engaged, 6g-provides for application, 7e-clarifies student misunderstanding.)

CORRECTIVES AND/OR EXTENSIONS: (2e-corrective feedback, 2f-reteaches, 4e-keeps students engaged, 9c-encourages slow/reluctant learners.)

CLOSURE: (6h-closes instruction appropriately, 6c-relates content to prior/future learning, 9b-emphasized value/ importance of the activity or content.)

1.
2.
3.

MATERIALS USED: (1a-varies activities, 3b-uses procedures/routines, 3d-appropriate seating, 3e-has materials, aids, facilities ready, 4e-keeps students engaged.)

1.
2.
3.
4.

MATERIALS NEEDED:

1.
2.
3.
4.

LESSON PLANNING SHEET

Subject: **Source:**

Unit: **EE #:** H-6 **FILE #**

TEACHING OBJECTIVES: The student will be able to:	**LEARNING EXPERIENCES:** The student will have the opportunity to:

ANTICIPATORY SET/FOCUS: (2a-communicates learning expectations, 3a-secures students' attention, 4a/6a-begins inst promptly/with appropriate introduction, 6c-related content to prior/future learning, 8a-related content to student interest/ experience, 9d-establishes rapport.)

____ **Focus Attention**
____ **Provide Practice**
____ **Diagnostic**

EXPLANATION/MODELING: (1b-interacts w/students, 2d/8c-reinforces, 6a-begins w/appropriate activity, 6b-appropriate sequence, 6d-definition concepts/description of skills, 6e-elaboration/critical attributes, 6f-stresses generalization/principle/ rule, 7b-explains clearly, 7c-stresses important points/dimensions of concept, 7d, 7e-uses correct grammar/language, 8b, 8d-emphasizes importance/challenges.)

CHECKING FOR UNDERSTANDING: (1c-solicits student participation, 2b-monitors students' performances, 2c-solicits response/demo for assessment, 2d-reinforces correct responses, 7e-clarifies student misunderstanding, 9a-avoids sarcasm.)

GUIDED PRACTICE: (2c-solicits response/demonstration from specific students for assessment, 3c-clear administrative directions, 1f/4b-implements appropriate sequence of activities, 4d-maintains focus, 9b,d-maintains courtesy/supportive environment.)

INDEPENDENT PRACTICE: (2b-monitors students' performance, 4b-implements appropriate sequence of activities, 4e-keeps students engaged, 6g-provides for application, 7e-clarifies student misunderstanding.)

CORRECTIVES AND/OR EXTENSIONS: (2e-corrective feedback, 2f-reteaches, 4e-keeps students engaged, 9c-encourages slow/reluctant learners.)

CLOSURE: (6h-closes instruction appropriately, 6c-relates content to prior/future learning, 9b-emphasized value/ importance of the activity or content.)

1.
2.
3.

MATERIALS USED: (1a-varies activities, 3b-uses procedures/routines, 3d-appropriate seating, 3e-has materials, aids, facilities ready, 4e-keeps students engaged.)

1.
2.
3.
4.

MATERIALS NEEDED:

1.
2.
3.
4.

Blank Forms for Copying

- Pretests
- Posttests
- Checking for Understanding Exercises
- Guided Practices
- Independent Practices

Name ______________________ Date ______________________

Pretest for Unit I: Arithmetic Fundamentals

Assignments 1, 2, and 3

1. Arrange these numbers in a column, then add them: $22.50, $13.00, $12.66, and $19.44.

Add the following columns of numbers:

2.
66
18
66
12

3.
39
19
12
44

Subtract the following columns:

4.
22.00
− 18.33

5.
99.12
− 16.33

Add the following fractions:

6.
6 3/4
+ 4 1/2

7.
8 9/10
+ 6 8/10

Subtract the following fractions:

8.
9 3/4
− 8 1/4

9.
12 2/3
− 11 1/3

Give the decimal and fraction equivalents for these percents:

10. 50 percent = __________ = __________
11. 100 percent = __________ = __________

Do the following problems. Answers should have no more than two digits after the decimal. Round up anything over two digits. For example, 1.331 would become 1.34.

12. 654 × 34 = ______
13. 782 × 25 = ______
14. 12 × 13 = ______
15. 10.4 ÷ 26 = ______
16. 549 ÷ 1.8 = ______
17. 32 ÷ 2.2 = ______
18. The decimal equivalent of 3/8 is ______

Change the following weights and measurements as indicated, and show your work.

19. 360 in. to ft =

20. 176 pt to qt =

21. 288 qt to gal =

22. What would you tell a customer who wants to know how many pints are in a 2-liter bottle? ______

23. If you buy 2 kilograms of butter, how much butter are you buying in pounds? ______

24. About how many bushels do you get if you buy 18 liters of produce? ______

Without consulting the table of U.S. weights and measures, make the following conversions:

24. 52 gal to qt __________

25. Convert 24 lb, 12 oz to oz __________

Name ______________________________ Date ______________________________

Posttest for Unit I: Arithmetic Fundamentals

Assignments 1, 2, and 3

1. Arrange these numbers in a column, then add them: $38.50, $12.60, $15.40, and $18.76.

Add the following columns of numbers:

2.
66
22
12
$\underline{20}$

3.
50
12
22
$\underline{50}$

Subtract the following columns:

4.
22.00
$\underline{-\ 20.33}$

5.
199.12
$\underline{-\ 114.33}$

Add the following fractions:

6.
9 2/4
$\underline{+\ 6\ 1/4}$

7.
9 6/10
$\underline{+\ 6\ 8/10}$

Subtract the following fractions:

8.
9 3/4
$\underline{-\ 7\ 1/4}$

9.
12 2/3
$\underline{-\ 10\ 1/3}$

Give the decimal and fraction equivalents for these percents:

10. 25 percent = __________ = ____________
11. 80 percent = __________ = ____________

Do the following problems. For answers that are in dollars and cents, round the result up to the nearest penny. For example, $2.4444 in an answer would become $2.45.

12. 32 × 40 = _____

13. 112 × 20.56 = _____

14. 624 ÷ 30 = _____

15. $1,006.00 ÷ $16.50 = _____

16. Find the cost of 232 pounds of tomatoes at 62 1/2 cents per pound. _____

17. How many inches in 3 feet? _____

18. How many pecks of apples in 100 bushels? _____

19. A buyer bought the following shirts: 8 dozen white, 4 dozen blue, and 24 dozen tan. How many gross were purchased? ______

20. How many pounds does 4 kilograms equal? ______

Name ______________________________ Date ______________________________

Pretest for Unit II: Application of Arithmetic Fundamentals

Assignments 4, 5, and 6

1. Find the interest on $150.00 for 50 days at 12%. Answer ______________

2. Find the interest on $2,250.00 for 30 days at 12%. Answer ______________

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

3. Marguerite earned $450.00 in two weeks. She put $150.00 in her savings account for college. What percent of her earnings did she save? Answer ______________

4. A buyer had to reduce inventory by 38%. If the merchandise was valued at $11,520,000, how much of a reduction was taken? Answer ______________

5. Michelle has been shopping for a new set of golf clubs. She has saved $320.00. This is 80% of the retail price of the set. What is the retail price of the clubs? Answer ______________

6. Extend the sales slip below and add these items to get a merchandise total (MDSE TOTAL): 5 pairs of socks at $4.50 each, 1 tie tack at $19.50, and 6 undershirts at $9.00 each.

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE. TOTAL		

Name ______________________________ Date ______________________________

Posttest for Unit II: Application of Arithmetic Fundamentals

Assignments 4, 5, and 6

1. Find the interest on $3,000.00 for 120 days at 18%. Answer ______

2. Find the interest on $1,700.00 for 60 days at 12%. Answer ______

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

3. The payment on Juanita's new pickup is $260.00 per month. With gasoline and other related expenses, she spent a total of $360.00 on the car in January. What percent of her car expenses went for the car payment in January? Answer ______

4. Mary made a good deal on a CD player, reporting that she paid $125.00, which was only 70% of the original price. What was the original price? Answer ______

5. John's Other Store spent 18% of its gross income of $90,000.00 each quarter on advertising. How much did it spend on advertrising? Answer ______

6. Complete the price change form below by extending the items for which prices are being marked down. Note that what is extended is the unit difference for each item. They include 10 shirts being marked down from $25.00 to $17.00, and 15 shirts being marked down from $20.00 to $12.00.

PRICE CHANGE FORM

Date________________199___ Number________________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
10 shirts #341	7	25	00	17	00			10		
15 shirts #343	7	25	00	12	00			15		
								Total		

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ____

Form ST-13

Name ______________________________ Date ______________________________

Pretest for Unit III: Cashiering

Assignments 7, 8, 9, and 10

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $10.00 for a purchase of $4.25. Assume that you do have half dollars. Also write what you would say to the customer if manual calculation is required.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

2. The following represents the contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $210.00.

Pennies	*125*	=	125 ×	.01	=	______	in pennies
Nickels	*100*	=	100 ×	.05	=	______	in nickels
Dimes	*25*	=	25 ×	.10	=	______	in dimes
Quarters	*30*	=	30 ×	.25	=	______	in quarters
Halves	*5*	=	5 ×	.50	=	______	in halves
$1s	*25*	=	25 ×	1.00	=	______	in ones
$5s	*15*	=	15 ×	5.00	=	______	in fives
$10s	*5*	=	5 ×	10.00	=	______	in tens
$20s	*2*	=	2 ×	20.00	=	______	in twenties
			Total		=	______	

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ______ at ______?

3. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer ______

4. Record this sale which was made to Bill E. Boyd at This Is the Store. The sale is for cash, and the department is #16. Sales tax will be 8%, or 0.08.

   1 knit shirt, #36333, $14.88
   1 dress shirt, #49900, $22.50
   6 pairs hose, #66264, $5.50 each

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

5. Alice Bluegown charges a $109.00 mechanic's tool set to her account at Speedy's, then two days later comes back and exchanges it for one costing $159.00. What would be the difference in total prices between what she paid for the first set and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

6. Using this information, do the calculations needed for a retail installment contract. A personal computer is being purchased for $1,800.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $300.00. There is no trade-in.

   Difference in total prices for sales is $__________________.

   1. (A) cash price
      (B) any accessories
      or services not (A)
   2. Sales tax
   3. Total cash price
   4. Down payment
   5. Item 3 – Item 4
   6. Amount financed
   7. Finance charge at 18%
   8. Deferred payment price (3 + 7)
   9. Total of payments (6 + 7)

7. Laura Smithson wants to buy a bracelet that costs other customers $165.00. She is entitled to a 25% employee's discount. What would she pay, exclusive of sales tax? ____________

Name ______________________________ Date ______________________________

Posttest for Unit III: Cashiering

Assignments 7, 8, 9, and 10

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $100.00 for a purchase of $77.95. You are out of half dollars. In this case, the cash register has shown the change should be $22.05.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

2. The following represents the contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $190.00.

Pennies	*75*	= 75	×	.01	= _______	in pennies
Nickels	*200*	= 200	×	.05	= _______	in nickels
Dimes	*40*	= 40	×	.10	= _______	in dimes
Quarters	*20*	= 20	×	.25	= _______	in quarters
Halves	*6*	= 6	×	.50	= _______	in halves
$1s	*25*	= 25	×	1.00	= _______	in ones
$5s	*3*	= 3	×	5.00	= _______	in fives
$10s	*5*	= 5	×	10.00	= _______	in tens
$20s	*4*	= 4	×	20.00	= _______	in twenties
		Total			= _______	

Check one and tell the amount.

Are you over _______ by _______?
short _______ by _______?
balanced _______ at _______?

3. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer ____________________

4. Record this sale which was made to Tom Oleana at Ship Modelers' Heaven. It is for cash, and the department is #2. Sales tax will be 8%, or 0.08.

   1 Ark Royal Kit, #332, $260.00
   1 Fittings kit, #333, $63.00
   1 Dremel scroll saw, #2288, $165.00
   1 Modern Modeling Bk, #11223, $17.50

NAME ____

ADDRESS ____

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		

5. C.D. Fan charges a $149.00 CD player to her account at Musicando, then two days later comes back and exchanges it for one costing $269.00. What would be the difference in total prices between what she paid for the first stereo component and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

   Difference in total prices for sales is ______

6. Using this information, do the calculations needed for a retail installment contract. A personal computer is being purchased for $2,100.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $200.00. There is no trade-in.

   1. (A) cash price
      (B) any accessories
      or services not in (A)
   2. Sales tax
   3. Total cash price
   4. Down payment
   6. Amount financed
   7. Finance charge at 18%
   8. Deferred payment price (3 + 7)
   9. Total of payments (6 + 7)

7. Monica Thompson is entitled to a 15% employee's discount. What would she pay for an item that costs other people $26.99? Do not include sales tax. ________

Name ________________________ Date ________________________

Pretest for Unit IV: Inventory Procedures

Assignments 11, 12, and 13

1. What is a packing slip, and how is it different from an invoice?

2. List the information that might be contained on an invoice.

3. What is an apron, and why is it important to a buyer?

4. What kind of information is usually included on a price tag?

5. What are the principles of marking merchandise?

6. What is the purpose of the receiving record?

7. What is the dollar amount change on a $60.00 item that is to be marked down 20%? ______
What is the new price? ______

8. If an item is reduced from $100.00 to $60.00, what is the percentage of reduction? ______

9. What is the dollar amount change on a $200.00 item that is marked down 40%? _____
What is the new price? _____

10. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

11. List some of the facts a physical inventory gives to management.

Name ______________________________ Date ________________________________

Posttest for Unit IV: Inventory Procedures

Assignments 11, 12, and 13

1. What is a packing slip, and how is it different from an invoice?

2. List the information that might be contained on an invoice.

3. What is an apron, and why is it important to a buyer?

4. What kind of information is usually included on a price tag?

5. What are the principles of marking merchandise?

6. What is the purpose of the receiving record?

7. What is the dollar amount change on an $80.00 item that is to be marked down 30%? ______ What is the new price? ______

8. If an item is reduced from $80.00 to $60.00, what is the percentage of reduction? ______

9. What is the dollar amount change on a $100.00 item that is marked down 50%? ______
What is the new price? ______

10. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

11. List some of the facts a physical inventory gives to management.

Name ______________________________ Date ______________________________

Pretest for Unit V: Invoices

Assignments 14, 15, and 16

Do the following two problems by placing the correct information in each blank, based on the stated terms.

1. The invoice is dated May 6, for merchandise costing $1,100.00 received July 28. Terms are 8/10 ROG.

   Amount saved by taking discount _______
   Amount paid if discount taken _______
   Last date for taking discount _______
   Last date for paying net amount if discount not taken _______

2. The invoice is dated August 11 for merchandise in the amount of $960.00 with terms of 3/10, net 30, X60.

   Amount saved by taking discount ______
   Amount paid if discount taken ______
   Last date for taking discount ______
   Last date for paying net amount if discount not taken ______

3. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

4. Which items of information on an invoice are used when checking the specific merchandise received?

5. Why is it important to know the number of packages?

6. Why are shipping instructions provided on the invoice, and why are they important?

7. What is the relationship between transportation charges and cost of merchandise?

8. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart provided.

_____ a. August 10 to November 20
_____ b. July 18 to September 30
_____ c. March 12 to August 6

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Name ______________________________ Date ________________________________

Posttest for Unit V: Invoices

Assignments 14, 15, and 16

Do the following two problems by placing the correct information in each blank, based on the stated terms.

1. Terms are 4/15, n/45 X30. The invoice dated December 10 is for $4,500.00.

   Amount saved by taking discount ______
   Amount paid if discount taken ______
   Last date for taking discount ______
   Last date for paying net amount if discount not taken ______

2. Invoice terms are 6/10, net 30, EOM. The invoice is dated April 11 for $925.00.

   Amount saved by taking discount ______
   Amount paid if discount taken ______
   Last date for taking discount ______
   Last date for paying net amount if discount not taken ______

3. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

4. Which items of information on an invoice are used when checking the specific merchandise received?

5. Why is it important to know the number of packages?

6. Why are shipping instructions provided on the invoice, and why are they important?

7. What is the relationship between transportation charges and cost of merchandise?

8. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart provided.

_____ a. June 8 to September 10
_____ b. January 2 to February 25
_____ c. April 12 to September 15

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Name ______________________________ Date ______________________________

Pretest for Unit VI: Computing Employee Earnings

Assignments 17, 18, 19, and 20

1. Harold began working at 4:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? _______ His hourly rate is $4.40 per hour. What was his gross pay? ________

2. Julia Greene is paid $5.00 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. How many dozen assemblies did she complete? _____ What was Julia's gross pay for the week? ______

3. Jimmy's time card shows the following information. How many hours did he work on the two days shown? ______ Based on an hourly rate of $3.80, what was his gross pay for those two days? _______

	Monday	Tuesday	
Time in	10:30 a	Time in	2:00 p
Time out	4:30 p	Time out	7:00 p

4. Harry Jones has a quota of $615.00 per week in sales, receives a salary of $300.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00? _______

5. Morty Santos is a salesperson employed on a straight commission of 12% of sales. Last month he sold merchandise amounting to a total of $105,425.00. What was his pay for the month? ________

6. Sam Wilkerson is a traveling representative who receives a commission of 15% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month? ________

7. R.T. Morton is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $30,000.00, plus a bonus of 1% of the net company sales. Last year the firm had net sales of $44,250,000.00. What were his total earnings for this year? ____________

8. A salesperson in the men's furnishings department received a salary of $800.00 for one month plus commissions of $425.00. His net sales were $10,732.00 for the month. What was his percentage of selling cost to the store? _________

9. One of the salespeople in the housewares department had a slow week. Her salary last week, including commissions, was $65.00, and her sales were $800.00. This week she sold $1,500.00 and received $90.00 in salary and commissions. How much did her selling cost percentage decrease the second week? ___________

Match each of the following terms to the appropriate definition:

10. _____ gross pay
11. _____ hourly wage
12. _____ military time
13. _____ overtime (OT)
14. _____ piece-rate
15. _____ rate
16. _____ termination offense
17. _____ wages

a. money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis
b. all pay added together
c. time and a half pay scale
d. an established rate for each hour worked
e. amount of pay for a unit of work. Units are usually hours, pieces of work, or days worked.
f. adding the number twelve to all hours worked between noon and midnight
g. employee is paid by the number of units produced or finished
h. breaking a company rule for which you can expect to be "fired"

Match terms to correct definitions:

18. _____ bonuses
19. _____ filing status
20. _____ F.I.C.A.
21. _____ fringe benefits
22. _____ P.M.'S (premium money)
23. _____ involuntary deductions
24. _____ payroll deductions
25. _____ payroll record

a. nonmonetary compensations an employee may receive in addition to regular earnings
b. any monies taken out of earnings before you receive them
c. extra money awarded for outstanding sales performance or for selling specific items
d. money given to encourage greater effort or increased productivity
e. Social Security
f. whether the worker is single, married, filing separately of spouse, jointly with spouse, and the number of people dependent on a worker for support
g. federal income tax and F.I.C.A.
h. money earned by selling specific merchandise or working hard-to-staff hours

26. _____ pay incentives

27. _____ voluntary deductions

28. _____ withholding tax

29. _____ is paid by both the employee and employer each month

i. federal income tax

j. ledger used to keep track of times worked and rates paid to different workers

k. Red Cross contributions and payroll savings plan

Name______________________________ Date ________________________________

Posttest for Unit VI: Computing Employee Earnings

Assignments 17, 18, 19, and 20

1. Josh began working at 5:30 A.M. and stopped working at 11:45 A.M. How many hours did he work? ________ His hourly rate is $4.20. What was his gross pay? ________

2. Judy works on the production line at Inasco. Her pay is based on a piece rate of $0.90 per circuit board. Last week, she completed 83 on Monday, 71 on Tuesday, 62 on Wednesday, 84 on Thursday, and 86 on Friday. How much was Judy's gross pay for the week? ______

3. Roland's time card shows that he "punched in" at 10 A.M. and "punched out" at 3:30 P.M. His hourly rate is $4.00. How many hours did Roland work? _______ What was his gross pay for the day's work? ________

4. Jo's time card shows she worked these hours on the two days. Based on an hourly rate of $4.30, what was her gross pay for those two days? ________

Time in	11:30 a	Time in	1:00 p
Time out	4:00 p	Time out	6:00 p

5. Harry Jones has a quota of $625.00 per week in sales, receives a salary of $200.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00?______________

6. Tom Sewell is a traveling representative who receives a commission of 20% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month? _______________

7. J.B. Kelly is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $20,000.00 plus a bonus of 1% of the net company sales. Last year the firm had net sales of $2,250,000.00. What were his total earnings for this year? _______

8. Kirk Broder is the manager of the menswear department at Harkins department store. Kirk is paid $780.00 per month plus 1% commission on net sales of his department. During October the department sold $22,000.00 with $450.00 returns. How much was Kirk's gross pay for the month? ____________

9. A salesperson in the men's furnishings department received a salary of $200.00 for one month plus commissions of $325.00. His net sales were $11,732.00 for the month. What was his percentage of selling cost to the store? _______

10. One of the salespeople in the housewares department had a slow week. Her salary, including commissions, was $65.00, and her sales were $800.00. This week she sold $1,500.00 and received $90.00 in salary and commissions. How much did her selling cost percentage decrease the second week? __________

Match each of the following terms to the appropriate definition:

11. _____ gross pay
12. _____ hourly wage
13. _____ military time
14. _____ overtime (OT)
15. _____ piece-rate
16. _____ rate
17. _____ termination offense
18. _____ wages

a. money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis
b. all pay added together
c. time and a half pay scale
d. an established rate for each hour worked
e. amount of pay for a unit of work. Units are usually hours, pieces of work, or days worked.
f. adding the number 12 to all hours worked between noon and midnight
g. employee is paid by the number of units produced or finished
h. breaking a company rule for which you can expect to be "fired"

Match term to correct definition:

19. _____ bonuses
21. _____ filing status
22. _____ F.I.C.A.
23. _____ fringe benefits
24. _____ P.M.'S (premium money)
25. _____ involuntary deductions

a. nonmonetary compensations an employee may receive in addition to regular earnings
b. any monies taken out of earnings before you receive them
c. extra money awarded for outstanding sales performance or for selling specific items
d. money given to encourage greater effort or increased productivity
e. Social Security
f. whether the worker is single, married, filing separately of spouse, jointly with spouse, and the number of people dependent on a worker for support

26. _____ payroll deductions

27. _____ payroll record

28. _____ pay incentives

29. _____ voluntary deductions

30. _____ withholding tax

31. _____ is paid by both the employee and employer each month

g. federal income tax and F.I.C.A.

h. money earned by selling specific merchandise or working hard-to-staff hours

i. federal income tax

j. ledger used to keep track of times worked and rates paid to different workers

k. Red Cross contributions and payroll savings plan

Name ______________________ Date ______________________

Pretest for Unit VII: Formulating a Purchase Plan

Assignments 21, 22, and 23

1. The Melletic Company has net sales of $225,000.00 and an average inventory of $11,000.00. What was their stockturn rate? _______

2. In your bicycle shop, you carry a line of riding accessories. Your average stock of helmets during the year was 10. During this same year, you sold 80 helmets. What was the stockturn rate for helmets that year? _____

3. If the stockturn rate on your riding shorts was found to be 0.10 for an average month, what could you estimate the stockturn rate for the year to be? ______

4. Would you rather have a 35% profit margin with four stockturns a year, or a 20% profit margin with eight stockturns per year? ______ Why? _______

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? _______

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? _____

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. _______

8. If the amount of net sales for February was $22,000.00 and BOM stock was $32,000.00, what would be the stock-sales ratio? _____

9. On November 30 the inventory for the coat department was $55,230.00 at retail. In December $42,300.00 worth of merchandise was sold, and $19,420.00 worth of merchandise was received during the month. What was the EOM inventory? ______________

10. If net sales for the month of October were $60,000.00 and the September EOM stock was $74,000.00, what would the stock-sales ratio be? ________________

11. The stock-sales ratio for Oberkamp was 1.85, and net sales for that month were $30,000.00. How much stock (retail value) was on hand? ________________

12. The stock-sales ratio for Benwall's is 2.8. The EOM stock for the previous month (retail value) was $29,000.00. What were the sales for this period? ________________

Fill in the blank with the term appropriate to the given definition:

13. The amount of inventory that a business starts with at the beginning of the month is known as the ____________________ inventory.

14. When a business counts every piece of inventory, this is called taking a _________________ inventory.

15. The amount of inventory determined by using records is called the _____________________ inventory.

16. $$\frac{\text{Inventory or stock on hand (retail price)}}{\text{sales}} = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$$

17. Why is it important to know the open-to-buy figure?

18. If planned inventory for the beginning of a period is $10,000.00, ending inventory is $15,000.00, and planned sales are $28,000.00, what would be the planned purchases? ________________

19. If inventory for the beginning of a period is $10,000.00, the ending inventory is $15,000.00, planned sales are $28,000.00, and there is $3,000.00 on order, what would be the open-to-buy figure? ________________

20. The beginning inventory for April is $18,000.00; closing inventory desired is $25,000.00; sales for the period are projected as $60,000.00. Already ordered is $10,000.00 worth of merchandise. What is the open-to-buy figure? ________________

21. Determine the open-to-buy for each department.

	Planned Purchases	Received	On Order	Open-to-Buy
Ladies	$5,600	$1,600	None	
Men's	$3,800	None	None	

Name ______________________________ Date ______________________________

Posttest for Unit VII: Formulating a Purchase Plan

Assignments 21, 22, and 23

1. The Melletic Company has net sales of $225,000.00 and an average inventory of $12,000.00. What was their stockturn rate? _______

2. In your bicycle shop, you carry a line of riding accessories. Your average stock of helmets during the year was 10. During this same year, you sold 80 helmets. What was the stockturn rate for helmets that year? _____

3. If the stockturn rate on your riding shorts was found to be 0.10 for an average month, what could you estimate the stockturn rate for the year to be? _____

4. Would you rather have a 45% profit margin with four stockturns a year, or a 30% profit margin with eight stockturns per year? ________________ Why? ________________

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? ____________________

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? ____________________

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. ____________________

8. If the amount of net sales was $32,000.00 this month, and the BOM was $42,000.00, what would be the stock-sales ratio? ____________________

9. On November 30, the inventory for the coat department was $55,230.00 at retail. During December, $42,300.00 worth of merchandise was sold, and $19,420.00 worth of merchandise was received. What was the December EOM inventory? ________

10. If net sales for the month of October were $70,000.00, and the EOM stock for September was $84,000.00, what would the stock-sales ratio be? ________

11. The stock-sales ratio for Washeka was 2.85, and net sales for the month were $50,000.00. How much stock (retail value) was on hand? ________

12. The stock-sales ratio for Benwall's is 2.8. The BOM stock (retail value) for September was $29,000.00. What were the sales for this period? ________

Fill in the blank with the term appropriate to the definition given:

13. The amount of inventory that a business starts with at the beginning of the month is known as the ________________________________.

14. When a business counts every piece of inventory, it is called a ________ inventory.

15. A ______ inventory is done by keeping records.

16. $\frac{\text{Inventory or stock on hand (retail price)}}{\text{sales}}$ = ____________________________

17. Determine the open-to-buy for each department.

	Planned Purchases	Received	On Order	Open-to-Buy
Children's	$5,500	$900	$1,200	
Housewares	$19,000	None	$12,600	
Sports	$4,500	$850	$2,025	

Name ______________________________ Date ______________________________

Pretest for Unit VIII: Purchasing Merchandise

Assignments 24, 25, and 26

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
A					
	1. Last year	$80,000	$60,000	$40,000	$180,000
SALES	2. Planned + 10%				
	3. Actual				
B					
RETAIL					
STOCK	4. Last year				
(BOM)	5. Planned				
	6. Actual				
C					
REDUC-	7. Last year 5%				
TIONS	8. Planned 5%				
% sales	9. Actual				
D					
PUR-	10. Last year				
CHASES	11. Planned				
IN $	12. Actual				

2. Define *purchase order*.

3. List ten pieces of information that should be included on a purchase order.

4. This means that the price follows changes in federal guidelines, the international market, or stock market activity: ____________________

5. This means that prices are the same for every customer, regardless of the quantity bought.
____

6. The price is marked up by a factor in a published form to help retailers price the product to the consumer and at the same time know what the product will cost them. ____________________

7. Mr. Heggerd's jewelry store offers a line of diamond pendants that retail for $450.00 to $2,100.00. Mr. Heggerd buys the pendants for $150.00 to $700.00. What is the keystone?
____

Name ______________________________ Date ______________________________

Posttest for Unit VIII: Purchasing Merchandise

Assignments 24, 25, and 26

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

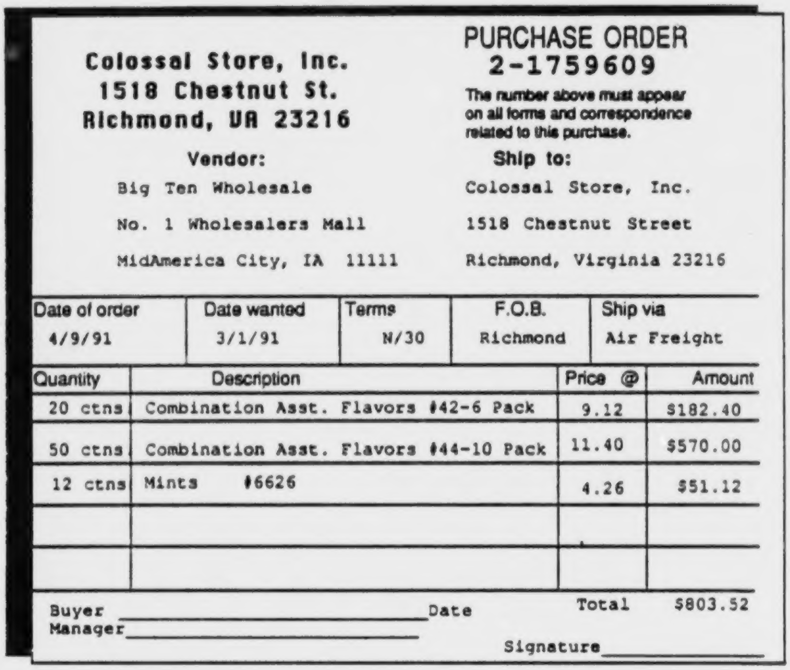
RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
A					
	1. Last year	$10,000	$8,000	$6,000	$24,000
SALES	2. Planned + 10%				$26,400
	3. Actual				
B					
RETAIL					
STOCK	4. Last year				
(BOM)	5. Planned				
	6. Actual				
C					
REDUC-	7. Last year 5%				
TIONS	8. Planned 5%				
% sales	9. Actual				
D					
PUR-	10. Last year				
CHASES	11. Planned				
IN $	12. Actual				

2. Find the following information on the purchase order shown. Place the labeling number, such as (1), (2), (3), etc., beside each one:

(1) A unique number used only for each particular order. It helps keep track to determine if any orders are missing.
(2) Merchant buying the order
(3) Vendor's name and address
(4) Address to ship merchandise to
(5) Date the order was placed
(6) Date by which merchandise should be received
(7) Information on when payment is due, and discounts allowable or expected
(8) The point to which merchandise will be shipped free
(9) How merchandise is to be shipped
(10) Number in which each item is to be shipped
(11) Description of merchandise
(12) The price per unit shipped
(13) The extension obtained by multiplying quantity times the price per unit
(14) Name of person who originated the order

(15) Name of person who approved the order
(16) How much the merchandise cost
(17) Signature of person responsible for the order



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216

PURCHASE ORDER
2-1759609
The number above must appear on all forms and correspondence related to this purchase.

Vendor:
Big Ten Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:
Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms	F.O.B.	Ship via
4/9/91	3/1/91	N/30	Richmond	Air Freight

Quantity	Description	Price @	Amount
20 ctns	Combination Asst. Flavors #42-6 Pack	9.12	$182.40
50 ctns	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns	Mints #6626	4.26	$51.12
		Total	$803.52

Buyer ______________________ Date
Manager ______________________
Signature ______________

3. A price regulated by a pricing structure that is uniform through the industry, nationally, or internationally is a ________

4. Pricing in which a one-price-for-everybody policy exists is called _________.

5. ______________ is pricing in which the wholesale price is increased by a certain factor to arrive at the retail price.

6. ______________ is pricing in which the price can change based on negotiation between customer and seller, or by variations from a base price.

7. The engagement ring that Tom and Sue wanted was not available in the retail store. Mrs. Longdon found exactly what they wanted in the Serpco catalog for $2,800.00, and she offered to order it for them. She promised delivery within two weeks. The ring was quadruple keystoned. How much did the store pay for the ring? _______ What was the pricing used? ______________

Name ______________________________ Date ______________________________

Pretest for Unit IX: Finding Retail Price

Assignments 27, 28, and 29

1. Mr. Warren wants to make a $1.00 profit on each of the doll tables he sells. The tables cost him $11.00 each. His overhead is $2.50 per table. What would the selling price be? ______ How much would his markup be for each table in dollars? ____ in percentage? ____

2. An item is sold for $30.00. The overhead expenses are $6.00, and the cost is $6.30. What is the profit (in dollars) sought for this item? ______ What is the markup percentage? ______

3. If a tennis racket costs the merchant $32.00 and the markup is $8.00, what is the percentage markup based on retail? _______ What is the cost percentage based on retail? _________

4. If an item sells for $27.00 and the markup is 44%, what is the amount of the markup? ______ What is the cost of the item? _______

5. If the cost of an item is $36.00 and that cost is 55% of the retail price, what is the markup percentage of the item? _______ What is the markup in dollars? _______ What does the item retail for? ______________

6. If the cost of an item is $50.00 and the markup is 41%, what is the retail price of that item? ________

7. If the markup is 35% and the cost is $15.00, what is the retail price? ____________

8. If the cost of an item is 53% and the cost is $22.00, what is the retail price? ________

9. If the selling price of an item is $60.00 and the cost is $40.00, what is the percentage markup based on retail? __________

10. The selling price of item A is $20.00, and the markup is $10.00. The selling price of item B is $12.00, and the markup is $9.00. What is the markup percentage for item A? __________
What is the markup percentage for item B? _________

11. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $80.00 before it finally sold.

What was the initial margin in dollars? ________ In %? _________
What was the margin when the item was marked down to $80.00?
in dollars? __________ in %? ____________

12. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? _________

13. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $32.00. If the shop takes a 68% margin on cost, what will be the selling price of the mitt? ________

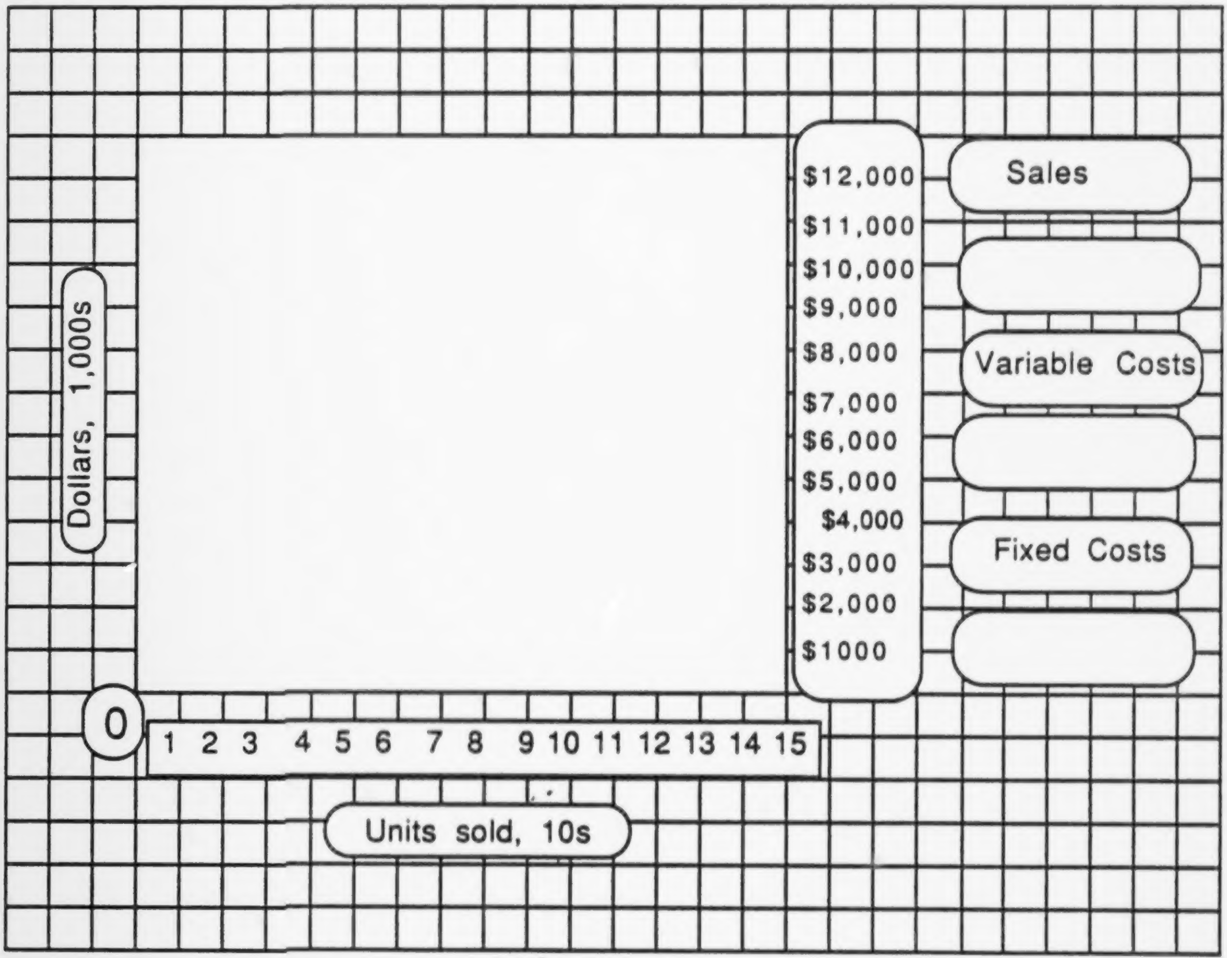
14. A plant shop buys cactus plants at $6.80 per item. Retail price for the plants is set at $11.80 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? __________

How many plants will have to be sold to meet fixed expenses? __________

15. Draw a break-even graph using the following information, then interpret your results. How many units must be sold to break even? _______ What is the profit at 150 units? __________

Management expects to sell 150 units at $80.00 each, retail price.
The fixed costs for the department are $2,000.00 for the month.
The only variable cost is that for buying the merchandise, and it is 50% of retail price.



Name ________________________________ Date ________________________________

Posttest for Unit IX: Finding Retail Price

Assignments 27, 28, and 29

1. Mr. Warren wants to make a $3.00 profit on each of the doll tables he sells. The tables cost him $10.00 each. His overhead is $2.50 per table. What would the selling price be? ______ How much would his markup be for each table in dollars? ____ in percentage? _____

2. An item is sold for $40.00. The overhead expenses run $8.00, and the cost is $16.00. What is the profit (in dollars) sought for this item? _____ What is the markup percentage? ______

3. If a tennis racket costs the merchant $32.00, and the markup is $11.00, what is the markup percentage based on retail? _______ What is the retail price? _________ What is the cost percentage based on retail? _______

4. If an item sells for $27.00 and the markup is 50%, what is the amount of the markup in dollars? _______ What is the cost of the item? _________

5. If the cost of an item is $36.00 and that cost is 60%, what is the markup percentage of the item? ______ What is the markup in dollars? _____ What does the item retail for? ______

6. If the cost of an item is $50.00 and the markup is 60%, what is the retail price of that item? ________

7. If the markup is 40% and the cost is $15.00, what is the retail price? __________

8. If the cost of an item is 60% and the cost is $200.00, what is the retail price? _______

9. If the selling price of an item is $60.00 and the cost is $45.00, what is the percentage markup based on retail? __________

10. The selling price of item A is $20.00, and the markup is $10.00. The selling price of item B is $15.00, and the markup is $9.00.

What is the markup percentage for item A? __________

What is the markup percentage for item B? __________

11. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $95.00 before it finally sold.

What was the initial margin in dollars? _______ In %? _______
What was the margin when the item was marked down to $95.00?
In dollars _____ In %? _____

12. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? ______

13. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $25.50. If the shop takes a 66-2/3% margin on cost, what will be the selling price of the mitt? __________

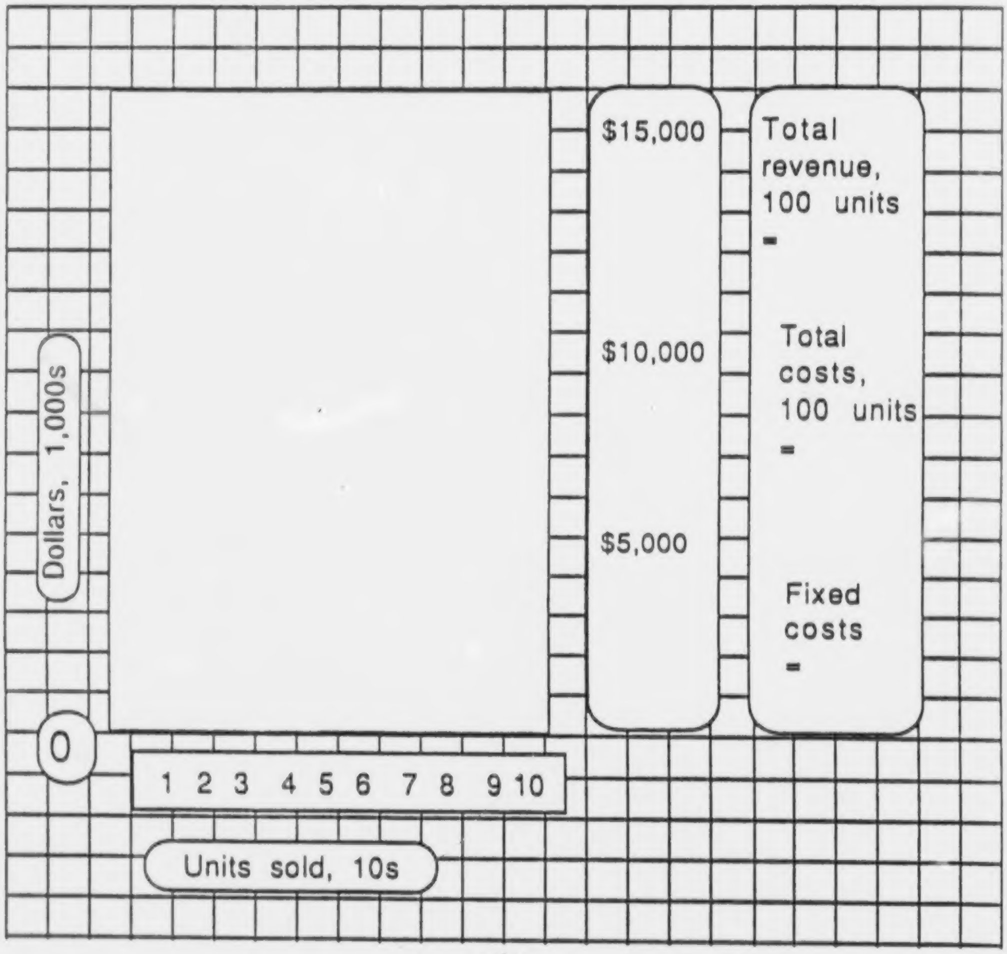
14. A plant shop buys cactus plants at $6.00 per item. Retail price for the plants is set at $10.00 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? ________

How many plants will have to be sold to meet fixed expenses? ________

15. Draw a break-even graph using the following information, then interpret your results.
Approximately how many units must be sold just to break even? ________
What is the profit if all 100 units are sold? ________

Management expects to sell 100 units at $150.00 each, retail price.
The fixed costs for the department are $3,000.00 for the month.
The total variable costs are 60% of retail.


$15,000
$10,000
$5,000
Total revenue, 100 units =
Total costs, 100 units =
Fixed costs =
Dollars, 1,000s
0
1 2 3 4 5 6 7 8 9 10
Units sold, 10s

Name ______________________________ Date ______________________________

Pretest for Unit X: Financial Statements

Assignments 30, 31, and 32

1. Grayco's sales for the year were $325,000.00. They had allowed $1,000.00 in discounts for nonprofit organizations, and had received $2,005.00 in returned merchandise. Grayco began the year with $98,000.00 in inventory and purchased an additional $150,000 worth of merchandise. They ended the year with $98,000.00 worth of merchandise in inventory.

   Grayco had an advertising budget of $2,800.00 local and $3,200.00 national. Their payroll amounted to $98,000.00 for the year. They paid a yearly property tax of $3,300.00, and their utilities averaged $400.00 per month. Property upkeep was $8,000.00 for the year.

   In addition to their sales revenue, Grayco received $5,000.00 per quarter for rental of other property and were able to negotiate the sale of $600 per month for their waste materials.
   On the form provided, complete Grayco's income statement for the quarter.

Grayco
Income Statement
For the year ending December 31, 19___

Operating Income

1. Sales $________
2. Less returns, discounts, allowances $________
3. = Net sales $________
4. Less cost of goods sold $________
5. = GROSS MARGIN $________

Operating Expenses

6. Employee compensations $________
7. Property tax $________
8. Utilities $________
9. Advertising expense $________
10. Property upkeep $________
11. = TOTAL OPERATING EXPENSE – $________
12. NET OPERATING INCOME $________

Other Income

13. Total rental income $________
14. Sale of waste materials $________

15. = TOTAL OTHER INCOME $________
16. NET INCOME $________

2. A small store has assets of $12,500.00 and liabilities of $5,600.00. What is the proprietorship of the business? ____________

3. A small newsstand has assets of cash, $570.75; accounts receivable, $280.60; stock on hand, $1,620.00; and equipment and fixtures, $2,650.00. Its liabilities are accounts payable, $1,500.00; note due to First State Bank, $500.00. What is the net worth of the newsstand?

____

Match the terms on the left to the statements on the right.

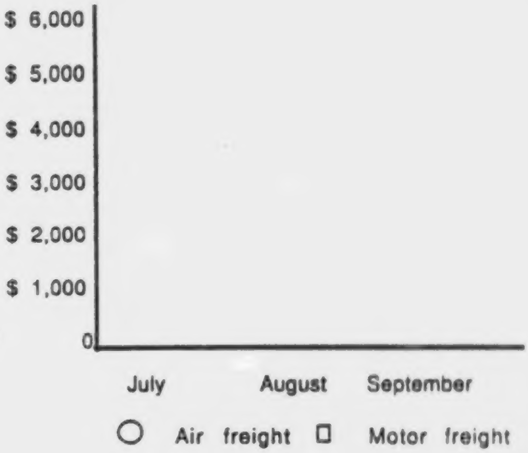
____4. asset
____5. balance sheet
____6. current assets
____7. equity
____8. fixed assets
____9. liabilities
____10. net worth
____11. proprietorship
____12. solvent

a. shows what the business owns, what it owes, and how much it is worth
b. term used to describe a company that has the ability to pay all of its debts
c. a synonym for owner's equity or proprietorship
d. can be converted into cash within a one-year business cycle
e. things the company owns that will be used for more than a year
f. the amount left over when liabilities have been subtracted from assets
g. the financial obligations that a company has to creditors
h. a synonym for owner's equity or net worth
i. anything a business owns that has value
j. all of the money spent by a business
k. being sued for injuries

13. Using the following information, plot a graph showing the related costs of the two modes of shipment for the three months listed.

Interstate Mercantile ships by both air freight and motor freight.

	Air	Motor
July	$3,200	$4,600
August	2,900	3,400
September	3,300	5,100



14. From the same information, draw a pie chart comparing the amount spent on air freight and the amount spent on motor freight. The total amount is 100%.

Name ______________________________ Date ____

Posttest for Unit X: Financial Statements

Assignments 30, 31, and 32

1. Killian's sales for the first half of the year were $116,666.68. Sales were $233,333.32 for the second half of the year. They had allowed $1,200.00 in discounts for nonprofit organizations, and had received $6,800.00 in returned merchandise.

   Killian's began the year with $102,000 in inventory and purchased an additional $150,000.00 worth of merchandise. During the year they returned $2,500.00 worth of merchandise to vendors and ended the year with $88,000.00 worth of merchandise in inventory.

   Since Killian's has the benefit of a great deal of cooperative advertising, their advertising budget was a low $2,800.00, but their payroll amounted to $129,000.00 for the year. They paid a yearly rent rate of $16,000.00 and a street service $40.00 per month to sweep the parking lot. Their utilities averaged $160.00 per month.

   In addition to their sales revenue, Killian's received $40,550.00 for rental of other property and was able to negotiate the sale of $20,000.00 of their waste materials to a nearby pig farm. On the form provided, complete Killian's income statement for the year.

Killian's Supply

Income Statement

For the year ending December 31, 19___

Operating Income			
1. Sales	$________		
2. Less returns, discounts, allowances	$________		
3. = Net sales		$________	
4. Less cost of goods sold		$________	
5. = GROSS MARGIN		$________	
Operating Expenses			
6. Employee compensations	$________		
7. Rent	$________		
8. Utilities	$________		
9. Advertising expense	$________		
10. Property upkeep	$________		
11. = TOTAL OPERATING EXPENSE		– $________	
12. NET OPERATING INCOME			$________
Other Income			
13. Property rental		$________	
14. Waste materials sale		$________	
15. = TOTAL OTHER INCOME			$________
16. NET INCOME			$________

Match the terms on the left to the statements on the right.

_____2. asset
_____3. balance sheet
_____4. current assets
_____5. equity
_____6. fixed assets
_____7. liabilities
_____8. net worth
_____9. proprietorship
_____10. solvent

a. shows what the business owns, what it owes, and how much it is worth
b. term used to describe a company that has the ability to pay all of its debts
c. a synonym for owner's equity or proprietorship
d. can be converted into cash within a one-year business cycle
e. things the company owns that will be used for more than a year
f. the amount left over when liabilities have been subtracted from assets
g. the financial obligations that a company has to creditors
h. a synonym for owner's equity or net worth
i. anything a business owns that has value
j. all of the money spent by a business
k. being sued for injuries

11. Assume that R.M. Markins has the following assets and liabilities and wishes to prepare a balance sheet in order to get a personal loan from a bank. As of February 28, Markins has $42.50 in cash and a checking account at the First National Bank with a balance of $369.50. He has lent money to J.C. Springer, who currently owes Markins a balance of $160.00.

In addition, Markins owes the Emporium Store $225.00 on an installment account, the Village Hardware Store $50.00 on a lawnmower, and Joe's Garage $37.50 for car repairs.

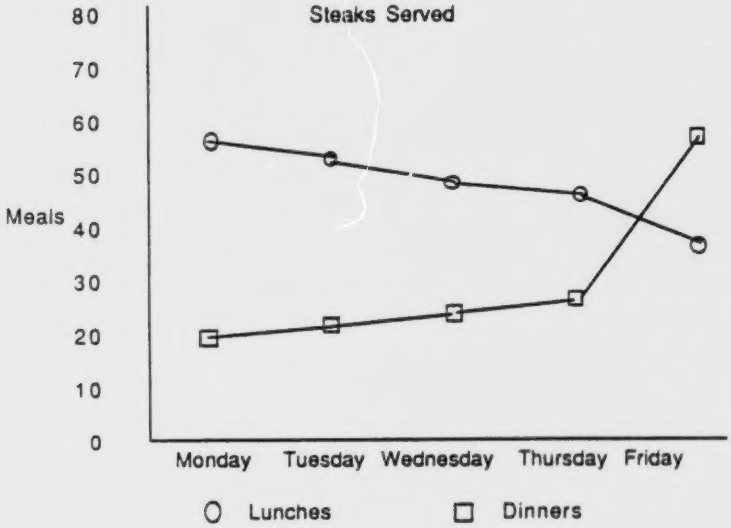
Markins can list all of his furniture, appliances, and other tangible assets as worth $1,800.00. He owes Ace Motors a balance of $160.00 on his car currently worth $895.00, and he has two life insurance policies with a cash surrender value of $800.00.

What would be R.M. Markins' net worth?

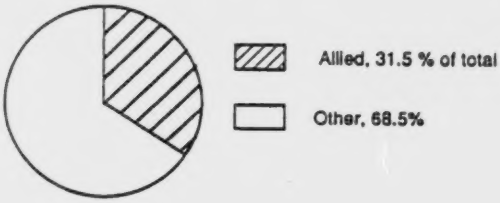
R.M. Markins
Balance Sheet
as of
February 28, 19 ___

ASSETS		LIABILITIES	
Cash on hand	$__________	Accounts payable:	
Account 1st Nat'l Bank	$__________	Emporium Store	$__________
Accounts receivable:		Village Hardware	$__________
J.C. Springer	$__________	Joe's Garage	$__________
Furniture, etc.	$__________	Ace Motors	$__________
Automobile	$__________		
		Total Liabilities	$__________
Life Insurance	$__________	Net Worth	$__________
Total Assets	$__________	Total Liabilities and Worth	$__________

12. Interpret the information on the following graph. State three facts that you know by looking at the graph.



13. Goodall's buys merchandise from both Allied and Consolidated. Examine the following pie chart and determine what percentage of Goodall's merchandise was bought from Allied during the month charted. ___________



Name ______________________________ Date ______________________________

Pretest for Unit XI: Personal Mathematics

Assignments 33 and 34

For each of the following statements, indicate whether the statement is true or false by marking T for True or F for False.

1. ____ The "funny looking" numbers at the bottom of the check are there for the bank and mean nothing to you.
2. ____ It is "OK" to date checks on holidays and Sundays.
3. ____ A joint account has two or more signatures on file at the bank. Any one of these signatures can be used on a check to authorize payment from the account.
4. ____ A postdated check is a check containing a date that has already passed.
5. ____ One should never sign a check until the payee's name and the amount are completed.
6. ____ All banks have the same services available.
7. ____ You must be very careful to sign each check exactly as your signature appears on the signature card.
8. ____ Most banks will always honor your checks and will call or write to let you know that you need to deposit more money to cover them.
9. ____ A check remains good for up to 30 months after being written.
10. ____ If your name is spelled incorrectly on the front of the check, you should endorse it with the spelling that appears on the front, then with the correct spelling beneath.

Multiple choice. Choose the best answer by circling the letter to the left of that answer.

11. Which of the following is the least desirable endorsement to use on a check?
    a. a blank endorsement
    b. a restrictive endorsement
    c. a transfer endorsement

12. Reasons for stopping payment on a check include all of the following except:
    a. discovery of fraud
    b. checks are lost or stolen
    c. you get mad at the payee
    d. payee does not fulfill agreement of payment

13. If you make a mistake when writing a check, you should
    a. tear the check up
    b. show that the check has been voided on your register or stub
    c. start over with a new check
    d. all of the above are correct

14. When writing a check, the last thing the payor should do is
    a. write name of payee
    b. indicate what check is payment for
    c. sign his or her signature
    d. write in the amount of check

15. "For deposit only" is an example of a
    a. blank endorsement
    b. restrictive endorsement
    c. corrective endorsement
    d. transfer endorsement

16. All monies deposited in a checking account should be recorded on the
    a. check register
    b. passbook
    c. signature card
    d. none of the above are correct

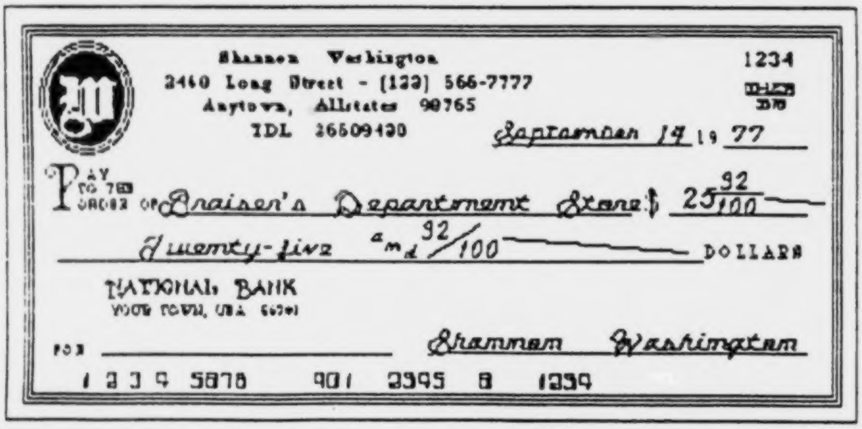
17. Information that is preprinted on the front of your checks when you receive them includes all but which of the following?
    a. check number
    b. name of your bank
    c. town in which the payee lives
    d. number of days it normally takes the check to clear your bank

18. On the deposit slip, checks being deposited are
    a. listed as currency
    b. added together and entered under "checks"
    c. deposited in a different deposit than other monies
    d. each listed separately

19. Which of the following is not something to consider when choosing a bank?
    a. convenience of location and hours
    b. whether the bank offers safety deposit boxes
    c. how large the bank is
    d. whether a night deposit is available
    e. the bank's reputation within the community

20. Name three advantages and three disadvantages of using a checking account.

21. Examine the check, written on September 4th, shown below. In which ways is it incorrectly written?



Shannon Washington
2460 Long Street - (123) 566-7777
Anytown, Allstates 98765
IDL 26509430

1234

September 19 19 77

PAY TO THE ORDER OF Braiser's Department Store $ 25 92/100

Twenty-five and 92/100 DOLLARS

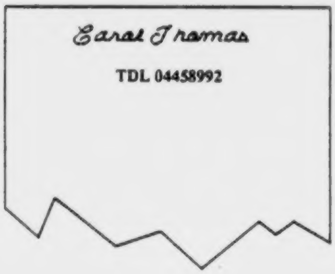
NATIONAL BANK
YOUR TOWN, USA

FOR

Shannon Washington

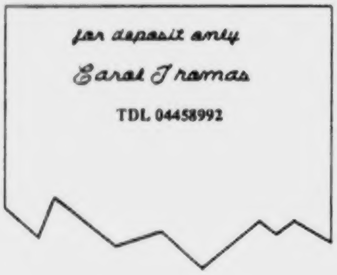
1 2 3 4 5878 901 2395 8 1339

22. Identify the three types of endorsements shown below.



Sarah Thomas

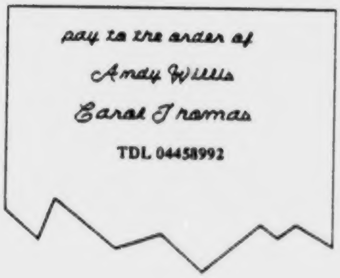
TDL 04458992



for deposit only

Sarah Thomas

TDL 04458992



pay to the order of

Andy Willis

Sarah Thomas

TDL 04458992

23. Explain why commercial finance company interest rates are usually higher than other lending institution rates.

24. Explain why credit union interest rates are usually lower than other lending institution rates.

25. Give an example of three kinds of collateral that might be used to secure a loan.

26. You are considering signing a $6,000.00 car loan with a stated interest of 10% per year, borrowed for three years. The dollar value of the interest paid for the loan is $1,800.00. What would be the simple interest rate if the loan is repaid with one payment at the end of three years? _______ What would be the effective interest rate if it is repaid in equal monthly payments for three years? ________

Name ______________________________ Date ______________________________

Posttest for Unit XI: Personal Mathematics

Assignments 33 and 34

For each of the following statements, indicate whether the statement is true or false by marking T for True or F for False.

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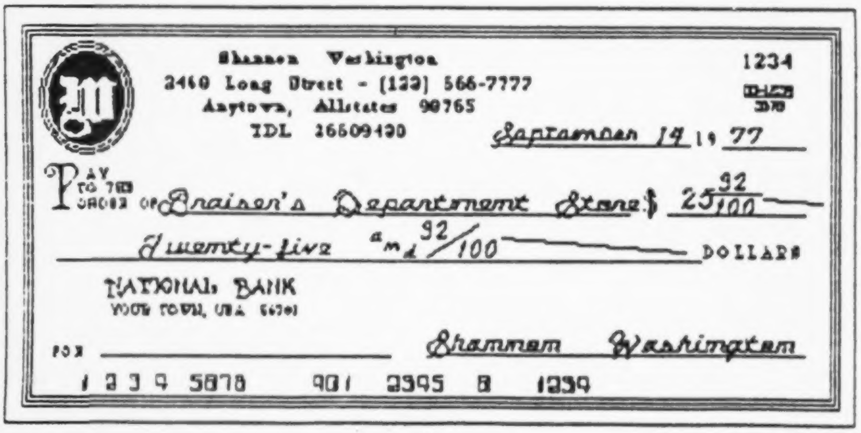

Shannon Washington
2460 Long Street - (123) 566-7777
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September 14 19 77

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Twenty-five and 92/100 DOLLARS

NATIONAL BANK
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FOR

Shannon Washington

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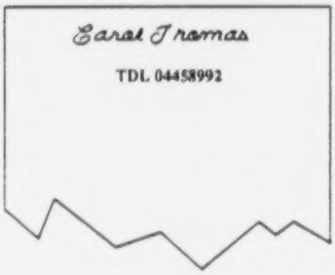
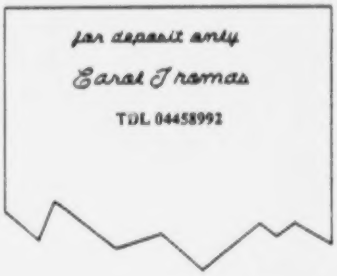
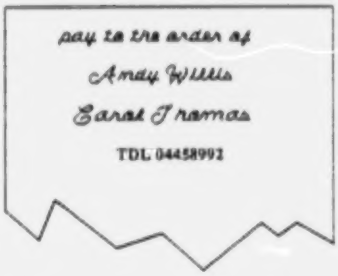






Match the terms on the right to the definitions on the left by writing in the appropriate letters.

_______ 23. Money deposited in the bank by one person and from which money is taken to pay the individual or organization named on the checks written by that person

_______ 24. Checks that have been deposited, cleared the bank and returned to you

_______ 25. A record sent to you by the bank reporting your balance, the checks cleared, deposits, and amount of fees

_______ 26. On file with the bank giving authority for payment from account.

a. bank statement
b. outstanding checks
c. signature card
d. cancelled checks
e. checking account

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

_______ 27. Usually a savings account

_______ 28. Checks payable on the signature of one person and one person only

_______ 29. Checks that you have written, but that have not cleared the bank

_______ 30. Be careful to sign signature card with the word *or*.

a. outstanding checks
b. joint account
c. passbook account
d. cancelled checks
e. individual account

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

_______ 31. Authorizes transfer of ownership of a check

_______ 32. When checks are lost of stolen, you should do this

_______ 33. Signature at the bottom of the check

_______ 34. Person to whom check is written

a. payor
b. payee
c. stop payment
d. endorsement
e. reconcile

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

_______ 35. Requires two or more signatures on checks
_______ 36. To make checkbook balance and statement balance come out even
_______ 37. Can be spent in exchange for something of value
_______ 38. To write checks for money you do not have in the bank

a. overdrawn
b. negotiable
c. joint account
d. reconcile
e. cosignature account

39. You are looking at a loan agreement that says the interest in dollars is $120.00 for a loan of $1,200.00 to be repaid in one payment at the end of the one-year period for which it is borrowed. What is the interest rate you will be paying? _____

What would the effective rate be if you pay for the loan in equal monthly installments over the year? _______

Name ______________________________ Date ________________________________

ASSIGNMENT 1

Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Checking for Understanding: Adding and Subtracting

Review your adding and subtracting skills using the following two common examples from marketing. Similar problems will be in the Guided Practice exercise for this assignment.

Hours worked, June	
June 4–10	1 2 hours
June 11–17	1 5 hours
June 18–24	1 4 hours
June 25–30	1 2 hours
	? ? hours

Sales Slip with Discount	
Price	$1 0 0
Discount	– 1 4
	$? ?

Checking for Understanding: Addition and Subtraction of Decimals

Write the following series of numbers first in a column, then in rows: $9.23, $6.00, $12.01, $0.11, $1.00.

Checking for Understanding: Finding a Percent Equivalent to a Fraction

What percent is the equivalent of 3/5? ___________

Checking for Understanding: Changing a Percent to a Decimal

60% =

Checking for Understanding: Finding Common Denominators

Find the smallest common denominators in these three situations:

1. 1/2 + 2/4 + 1/3 have a common denominator of _________.
2. 1/3 + 1/5 + 1/9 have a common denominator of _________.
3. 1/3 + 1/9 + 1/6 have a common denominator of _________.

Checking for Understanding: Adding Mixed Numbers

1. Add 1/6 to 1/4. Answer ______________

2. Add 4 3/4 to 8 3/8. Answer ______________

Checking for Understanding: Subtracting Fractions

1. Subtract 2/3 from 9/12. Answer ________________

2. Subtract 12 5/6 from 15 9/12. Answer______________

Name ______________________________ Date ______________________________

ASSIGNMENT 2

Multiplication and Division of Whole Numbers, Decimals, and Fractions

Checking for Understanding: Multiplication of Whole Numbers and Decimals

Do the following problems, placing the decimal point correctly where needed.
62 × 75 = ____________________
439 × 87 = ____________________
219.3 × 46.7 = ________________
5.004 × 0.0706 = ______________

Checking for Understanding: Division of Decimals, Placing the Decimal Point

Arrange the following problems so they are ready to work. Use arrows to show what you did.

40.46 ÷ 0.07 =

3.699 ÷ 246.6 =

Checking for Understanding: Multiplying and Dividing Using Fractions

Find the decimal equivalent for 1/5. Answer ____________________

Use that equivalent to multiply 6 1/5 by 2. Answer ______________

Use that equivalent to divide 16 1/5 by 4 1/5. Answer ____________

Name ______________________________ Date ______________________________

ASSIGNMENT 3

Weights and Measures

Checking for Understanding: Converting U.S. Units of Measurement

If a customer buys 2 quarts of strawberries, how many pints does she get? Answer ________

How many yards are in a mile? ______________

What does 1 rd equal? ________________

Name ______________________________ Date ______________________________

ASSIGNMENT 4

Simple Interest

Checking for Understanding: Using the Cancellation Method

1. Find the interest on $140.00 at 5% for 40 days. Show your cancellations. Answer ________

2. Find the interest on $360.00 at 12% for 84 days. Show your cancellations. Answer _______

Checking for Understanding: Using a Simple Interest Table

1. Using the interest table, and rounding up the answer, find the interest on $480.00 for 25 days at 6%. Answer ________________.

2. Using the interest table, and rounding up the answer, find the interest on $1,600.00 for 16 days at 3%. Answer ________________.

SIMPLE INTEREST TABLE

Interest on $1.00 on a 360-Day Year Basis

Days	1%	2%	3%	4%	5%	6%
1	.00003	.00006	.00008	.00011	.00014	.00017
2	.00006	.00011	.00017	.00022	.00028	.00033
3	.00008	.00017	.00025	.00033	.00042	.00050
4	.00011	.00022	.00033	.00044	.00056	.00067
5	.00014	.00028	.00042	.00056	.00069	.00083
6	.00017	.00033	.00050	.00067	.00083	.00100
7	.00019	.00039	.00058	.00078	.00097	.00117
8	.00022	.00044	.00067	.00089	.00111	.00133
9	.00025	.00050	.00075	.00100	.00125	.00150
10	.00028	.00056	.00083	.00111	.00139	.00167
11	.00031	.00061	.00092	.00122	.00153	.00183
12	.00033	.00067	.00100	.00133	.00167	.00200
13	.00036	.00072	.00108	.00144	.00181	.00217
14	.00039	.00078	.00117	.00156	.00194	.00233
15	.00042	.00083	.00125	.00167	.00208	.00250
16	.00044	.00089	.00133	.00178	.00222	.00267
17	.00047	.00094	.00142	.00189	.00236	.00283
18	.00050	.00100	.00150	.00200	.00250	.00300
19	.00053	.00106	.00158	.00211	.00264	.00317
20	.00056	.00111	.00167	.00222	.00278	.00333
21	.00058	.00117	.00175	.00233	.00292	.00350
22	.00061	.00122	.00183	.00244	.00306	.00367
23	.00064	.00128	.00192	.00256	.00319	.00383
24	.00067	.00133	.00200	.00267	.00333	.00400
25	.00069	.00139	.00208	.00278	.00347	.00417
26	.00072	.00144	.00217	.00289	.00361	.00433
27	.00075	.00150	.00225	.00300	.00375	.00450
28	.00078	.00156	.00233	.00311	.00389	.00467
29	.00081	.00161	.00242	.00322	.00403	.00483
30	.00083	.00167	.00250	.00333	.00417	.00500

Name ______________________________ Date ______________________________

ASSIGNMENT 5

Percentage, Base, and Rate

Checking for Understanding: Finding Percentage, Base, or Rate

1. Illustrate using an equation the relationship between percentage, base, and rate. Answer ____

2. If the base is 1,500 and the rate is 60%, what is the percentage? Answer ________________

3. If the rate is 20% and the percentage is 230, what is the base? Answer ________________

4. If the percentage is 735 and the base is 2,100, what is the rate? Answer ________________

Name ______________________ Date ______________________

ASSIGNMENT 6

Extensions

Checking for Understanding: Extensions

Complete the form below using the same approach used for the invoice in the example. With this purchase order the store purchased 3 12" band saws at $87.55 each, 3 saber saws at $41.50 each, and 84 scroll saw blades at $5.40 a dozen.

Quantity	Description	Price	Amount

Authorized by ______________________

Name ______________________________ Date ______________________________

ASSIGNMENT 7

Making Change

Checking for Understanding: Making Change after Electronic or Mechanical Calculations

For this example, assume your cash register has no half dollars—which often happens.

In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.24. The register shows change due is $10.76. Also write what you would say to the customer.

Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

Checking for Understanding: Making Change after Manual Calculations

In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.84. Also write what you would say to the customer.

Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

Name ______________________________ Date ______________________________

ASSIGNMENT 8

Cash Register Operation

Checking for Understanding: Electronic and Computerized Cash Registers

Complete the following sentences by filling in the blanks.

1. Some highly developed electronic cash registers ______________________
and ______________ price tags.
2. The ___________ on the price tag tells the register if a product is ________________.
3. Such a machine automatically _______________________ sales tax.
4. Registers that scan and read price tags are very popular with businesses that sell both _______
and __________ products.
5. Scanners scan and read information through devices such as a ______________________
________________ or a _________________ built into a _____________________.

Checking for Understanding: Counting a Cash Bank

Count your cash bank if the cash bank total is supposed to be $250.00. In the cash bank, there are the following amounts. After finding the total, indicate if the bank is over, short, or balanced.

Pennies	175	= 175 ×	.01	=	______	in pennies
Nickels	100	= 100 ×	.05	=	______	in nickels
Dimes	10	= 10 ×	.10	=	______	in dimes
Quarters	35	= 35 ×	.25	=	______	in quarters
Halves	4	= 4 ×	.50	=	______	in halves
$1s	52	= 52 ×	1.00	=	______	in ones
$5s	14	= 14 ×	5.00	=	______	in fives
$10s	5	= 5 ×	10.00	=	______	in tens
$20s	3	= 3 ×	20.00	=	______	in twenties
		Total		=	______	

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ______ by ______?

Checking for Understanding: Closing Out a Cash Drawer

Complete these sentences by filling in the blanks.

To close out your cash drawer:

1. Take register readings of the ______________ ________________

   and the ______________ ________________ ________________.

2. ______________ the readings on the ________________

   ______________ ________________ ________________.

3. Count the money in the ______________ ______________ .

   This should include your ______________ ________________

   and ______________ ________________ less the

   ________________ ________________ ________________.

4. Decide if you ______________, or if you have a ______________

   or an ________________.

5. Take a final ______________ ________________ .

Name ______________________________ Date ______________________________

ASSIGNMENT 9

Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Checking for Understanding: Manually Completing a Sales Slip

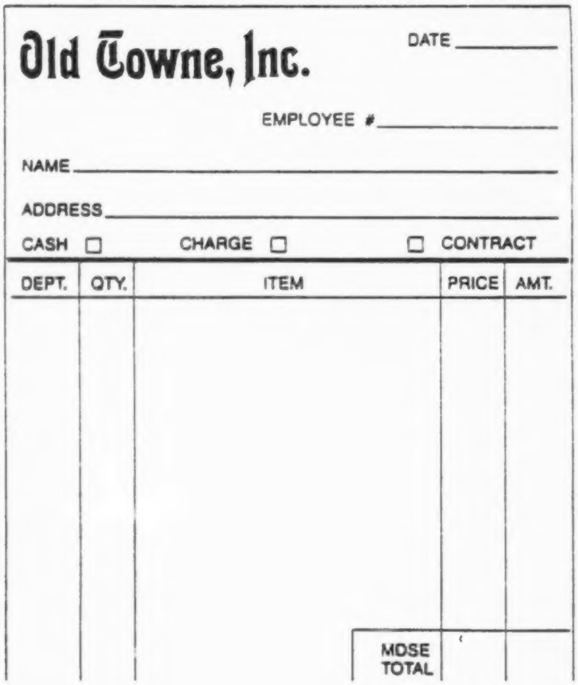
Complete the blank sales slip in figure 3. You can consult figure 2 to determine where each type of information goes. Do not figure tax or total price. This is the information to enter:

Employee #: (Your Social Security number)
Terms of the Transaction: Cash
Date: Today

Merchandise

Dept	*Qty*	*Item*	*Stock Number*	*Price*
12	3	ties	#33565	$27.50
51	12	handkerchiefs	#17895	5.00
51	6	pair of socks	#29123	6.50
52	1	belt	#21243	18.00

Merchandise Total



Old Towne, Inc.

DATE ________

EMPLOYEE # ____________

NAME ______________________________

ADDRESS ______________________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		

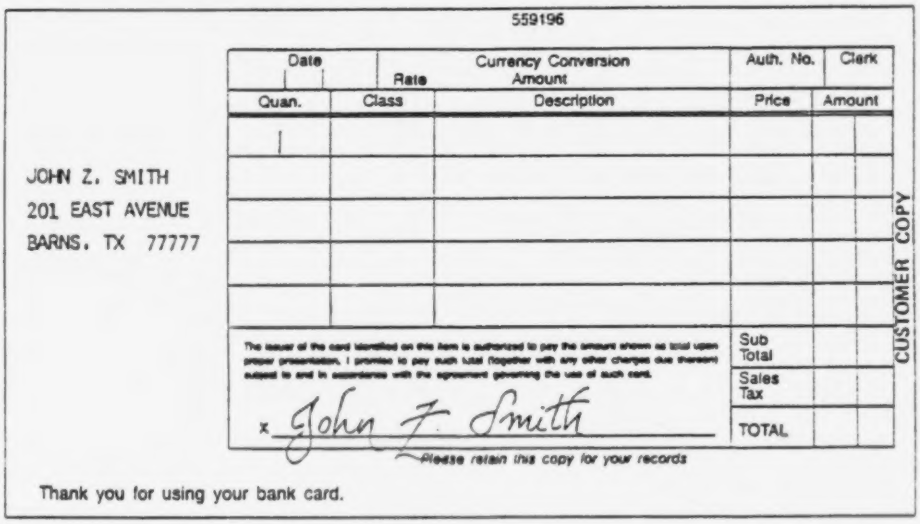
Fig. 3. A sales slip for manual completion

Checking for Understanding: Bank Credit Cards

Fill in a standard credit sales slip for a bank credit card, shown below. Do not figure sales tax. Use the following information.

Date: Today
Authorization code: 80950
Clerk's initials: Your initials

Quantity	*Class*	*Description*	*Price*
1	42	bathrobe	$42.00
4	48	pairs of underwear	$4.50 pr.
2	511	nightgowns	$16.00



559196

Date	Currency Conversion Rate Amount	Auth. No.	Clerk

Quan.	Class	Description	Price	Amount
			Sub Total	
			Sales Tax	
			TOTAL	

JOHN Z. SMITH
201 EAST AVENUE
BARNS, TX 77777

x John Z. Smith

Please retain this copy for your records

CUSTOMER COPY

Thank you for using your bank card.

Checking for Understanding: Finding the Amount of Sales Tax

1. Using the equation, find the sales tax due on a merchandise total of $24.00 when the sales tax in the community is 0.08, or 8%. Answer________________________

2. Using the sales tax schedule for 8%, find the tax on a $0.60 item. Answer ________________

Checking for Understanding: Handling Refunds and Exchanges

Calculate the following types of merchandise returns, and tell what action to take. The sales tax is 8%, or 0.08.

1. A cash refund for a shirt that cost $15.99 + tax for a total of $17.27.
   Answer _____________________

2. A charge credit for a shirt that cost $15.99 + tax for a total of $17.27.
Answer ______________________________

3. An even exchange if the shirt cost $15.99 + tax for a total of $17.27.
Answer ______________________

4. An uneven exchange for an item that costs less. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $10.95 + tax for a total of $11.83.
Answer, price difference ____________ Answer, sales tax difference: ______________
Total amount refunded if cash paid ________________

5. An uneven exchange for an item that costs more. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $37.00 + tax for a total of $39.96.
Answer, price difference __________________ Answer, sales tax difference ____________
Answer, additional amount due if cash ________________.

Checking for Understanding: Installment Sales Contracts

Do the calculations necessary to prepare an installment sales contract under the following conditions. The down payment will be $150.00. The trade-in allowance is $60.00.

1. (A) cash price	$1305.48
(B) maintenance contract	195.00
2. Sales tax, at 8%	120.04

CONTRACT NO.

1. (A) Cash Price $__________
(B) Price of any accessories and/or services not included in (A) $__________
2. Sales Tax $__________
3. Total Cash price (1A, 1B, and 2) $__________
4. Downpayment
(A) Cash $__________
(B) Trade-in allowance $__________
5. Item 3–Item 4 $__________
6. Unpaid Balance of Cash Price (Amount Financed) $__________
7. Finance Charge at 18% $__________
8. Deferred Payment Price (3 + 7) $__________
9. Total of Payments (6 + 7) $__________

Name ______________________________ Date ______________________________

ASSIGNMENT 10

Employee and Other Retail Discounts

Checking for Understanding: Employee and Business Discounts

1. Define *employee discount.*

2. Define *business discount.*

3. Briefly list the steps in handling an employee or business discount.

4. Complete a sales slip for the employee purchases that follow.

   Aimee Jones, an associate at Emporia's Boutique, wishes to purchase a necklace (Stock No. 34678) that retails for $38.00. She knows that she must identify herself in order to receive the 25% employee discount. Sales tax is 8%, or 0.08. The sale is for cash, and the department is No. 12.

Emporia's Boutique DATE ____________

EMPLOYEE # ____________

NAME ____________

ADDRESS ____________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

Name ______________________________ Date ______________________________

ASSIGNMENT 11

Receiving and Marking Merchandise

Checking for Understanding: Receiving Forms and Checking in an Order

1. Tell the purposes of an invoice, packing slip, receiving form, and apron.

2. Explain how a packing slip and invoice are similar and how they differ.

3. Why is an apron important to a buyer?

4. Why is it important for the checker to initialize the invoice?

Checking for Understanding: Price Marking

1. Identify the kinds of information found on a price ticket or tag.

2. List five of the principles used in marking merchandise.

Name ______________________ Date ______________________

ASSIGNMENT 12

Markdowns and Other Price Changes

Checking for Understanding: Calculating the $ Value of a % Markdown

Bridgett works at Long's Jewelry Store. A customer wanted to purchase the following items with the corresponding price reductions:

1 silver necklace $65.00 less 40%
1 silver bracelet $42.75 less 25%
1 pair of silver earrings $27.50 less 30%

Complete the sales slip below, and determine the amount the customer owes, before figuring the sales tax.

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		

Checking for Understanding: Calculating the % Rate for a $ Markdown

The original price of a dress is $90.00. The sale price is $49.95. What is the amount of the markdown in dollars? ______________ How much is the price reduction as a percentage of the original price? ______________

Checking for Understanding: Recording Price Changes

Miller's Appliance is having a "One-Day Sale" and reducing the price on several washers and dryers. Use the following information to complete the price change form:

4 - 12 cycle washer #6309 from $550.00 to $349.99
9 - 8 cycle washer #7308 from $379.00 to $289.99
5 - electric dryer #7057 from $400.00 to $229.99

PRICE CHANGE FORM

Date________________199___ Number________________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
								Total		

Reason for Price Changes

1. Promotional Left-Over	6. Discount
2. Style or Pattern	7. Special Sale
3. Fabric	8. Discontinued Item
4. Color	9. Price Adjustment
5. Size	10. Purchased too Many

Manager's Signature ________________________________

Form ST-13

Name ______________________________ Date ______________________________

ASSIGNMENT 13

Taking Inventory

Checking for Understanding: Keeping Inventory

1. Describe two ways that inventory is counted and recorded.

2. Why is a physical inventory necessary?

3. What are some of the facts a physical inventory gives to management?

Name ______________________ Date ______________________

ASSIGNMENT 14

Cash Discounts

Checking for Understanding: Effects of Terms on Payments Made

Give the explanation for each of the following notations of terms offered:

1. 2/10—
2. net 30—
3. 4/8 as of July 1—
4. 3/10 ROG—
5. 2/10, x 60—

Assignment 15 does not have a Checking for Understanding

Name ______________________________ Date ______________________________

ASSIGNMENT 16

Determining Length of Time When Calculating Discounts and Interest

Checking for Understanding: Using a Chart to Calculate Days

You should follow this procedure but do not need to provide an answer; one will be given. Count the number of days from February 9 of one year to January 22 of the next year. Begin in the horizontal column marked February, move to the first column headed January, and find the figure 334. That means there are 334 days from February 9 to January 9. Subtract 9 from 22 to get 13. Add 13 more days to 334 days, and get the figure 347. That means there are exactly 347 days from February 9 to January 22. If the year counted happens to be a leap year, simply add an additional day to any figure given in the chart, provided that the month of February is counted.

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Name ______________________________ Date ______________________________

ASSIGNMENT 17

Computing Wages

Checking for Understanding: Hourly Wages

Do the following problem. Jean O'Conner is paid $3.40 an hour (regular hourly wage) for a forty-hour week. Her overtime (or time and a half) rate would be 1 1/2 × $3.40. The first week of September, Jean worked 43 hours. How much was Jean's gross pay (total pay) for that week? ____________________

Checking for Understanding: Piece-Rate Wages

Solve the following problem. Stacy Mercer is employed on a piece-rate basis for preparing and stuffing credit statements for mailing at the rate of $0.85 per 100. She prepared 1,200 on Monday, 1,440 on Tuesday, 920 on Wednesday, 600 on Thursday, and 1,040 on Friday. What were her wages for that week? ____________________

Checking for Understanding: Time Cards

Solve the following problem. Marcia began working at 11 A.M. She stopped working at 7 P.M. How many hours did she work? ____________________

Checking for Understanding: Computing Wages from Time Cards

Solve the following problem. Wilson worked 3 3/4 hours on Monday, 2 1/4 hours on Thursday, and 4 1/2 hours on Friday. How many hours did Wilson work that week? ________

Technical Learning Concepts

Define the following terms.

gross pay
hourly wage
military time
overtime (OT)
piece-rate
rate
termination offense
wages
net pay

Name ______________________________ Date ______________________________

ASSIGNMENT 18

Salaries and Commissions

Checking for Understanding: Salary Plus Commission

Solve the following problem. John receives a salary of $700.00 per month. He is paid on a semimonthly plan with a 3% commission of net sales. During the first two weeks of May, his net sales were $2,100.00. During the last two weeks, he sold $2,400.00. What was his gross pay for the first half of May? ____________________

$700 / 2 = ______________ semimonthly salary

$ ______________ net sales for the first two weeks × commission rate of 3% = ____________ commission for first two weeks

$ semimonthly salary
+ ________ commissions for first two weeks
$ total or gross pay for first two weeks

Checking for Understanding: Quota to Be Met

Solve this problem. Dora Cutter's quota at Evermire's Department Store is $2,000.00 per month. Dora receives a salary of $920.00 per month with a 1% bonus on all sales over her quota. During March, Dora sold $6,000.00. What was Dora's total pay for the month of March? ______

$ net sales
− ________ quota
$ commissioned sales for March
× ________ commission rate
$ bonus or commission
+ ________ base salary
$ total or gross pay for March

Checking for Understanding: Straight Commission

Solve this problem. Nora Kelly is a salesperson at Juneuv Jewelry. Nora works on a straight commission rate of 6%. During the month of December, Nora sold $18,000.00. One customer returned a $450.00 ring, and another returned a $25.00 piece of silver flatware. What was Nora's gross pay for the month of December? ________________

$18,000.00 gross sales
− ____________ returned merchandise
net sales
× ____________ commission rate
$ straight commission (total or gross pay)

Checking for Understanding: Draw

Solve this problem. Joe Thompson is a salesperson for a large automobile dealership. He earns 15 1/2% straight commission, plus a draw of $500.00 based on $13,000.00 monthly sales. During May, Joe sold $12,000.00. Since Joe is allowed a $500.00 draw if his sales fall below $12,000.00, is he allowed to draw during this month? ______________ What will be his total or gross pay for the month? ____________________

Checking for Understanding: Graduated Commission

Solve this problem. Max Headly receives a graduated commission in addition to his $500.00 base salary. He receives 5% on the first $500.00, 10% on the second $500.00, 15% on the third $500.00, and 20% on all sales over $1,500.00. His sales for the month of October were $2,300.00. What was Max's gross or total pay? ____________________

Base salary is
First $500 × 0.05 is
Second 500 × 0.10 is
Third $500 × 0.15 is
and 800 × 0.20 is
Gross pay is

Technical Learning Concepts

Define or explain each of the following terms.

commission
draw
graduated commission
monthly salary
net sales
quota
quota bonus plan
salary
salary plus
semimonthly salary

Name ______________________________ Date ______________________________

ASSIGNMENT 19

Incentives and Payroll Deductions

Checking for Understanding: Bonuses

Solve the following problem. Janette Blatik receives 2% on all net sales above her quota of $22,000.00. Would this percentage be a commission or a bonus? ____________________

Tony Gonzales's sales were $700.00 over his quota. He sold more duplicating machines than any other salesperson at Images, for which he received $500.00. Did Tony receive a bonus or a commission? ____________How much? ____________________

Checking for Understanding: Premium Money

Solve the following problem. Donald is paid an hourly rate of $4.00/hour. He receives a P.M. of $0.35 for each hour he works after 6:00 P.M. and any hours worked on Sunday. This week Donald worked from 4-8 P.M. on Monday, 3-7 P.M. on Wednesday, 2-6 P.M. on Friday, and from 8-11 A.M. on Sunday. What was Donald's gross pay?

	Regular hours	P.M. hours	Gross daily pay
Monday	____@ $4.00	____@ $4.35	________________
Wednesday	____@ $4.00	____@ $4.35	________________
Friday	____@ $4.00	____@ $4.35	________________
Sunday	____@ $4.00	____@ $4.35	________________

Gross pay for the week ____________

Checking for Understanding: Fringe Benefits

Solve the following problem. The Kinning Company pays their part-time cashiers $5.50 per hour. The Basel Shop pays their part-time cashiers $5.25 per hour and furnishes all part-timers working 20 hours a week or more with health insurance and one week of paid vacation based on an average week's pay. Which store would you rather work for? ____________________Why?

____

Checking for Understanding: Deductions

Solve the following problem. Using the two examples on voluntary and involuntary deductions, figure what Dan's net pay (take-home pay) would be for the week in question.

____

Checking for Understanding: Wage Computation

You may copy the ledger sheet or redraw it. Complete the payroll ledger sheet below, and compute the wages for employees listed. D. James is single, and E. Josha is married and filing jointly. Each is claiming only one exemption.

Employee	Status Exempt	M	T	W	T	F	S	Total Hours	Hourly Rate	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
James, D.	S-1	5	3	6	4	10	3		4.25				1.00		
Josha, E.	M-1	8	0	9	9	8	3		6.95				19.80		

Technical Learning Concepts

Define or explain the following terms.

bonus
filing status
F.I.C.A.
fringe benefits
involuntary deductions
P.M.'s (premium money)
payroll deductions
payroll record
pay incentives
voluntary deductions
withholding tax
exemptions

Name ______________________________ Date ______________________________

ASSIGNMENT 20

Determining Productivity

Checking for Understanding: Setting Quotas

Solve the following problem. How much would Bill Blarneystone have to sell in order to justify a total weekly pay of $100.00 if his selling cost is to be 5%? ________________

Checking for Understanding: Comparing Productivity

Solve this problem. Suppose that during the same week, part-time employee Susy Hoyt in the same department worked 24 hours at a rate of $4.00 per hour. She had sales of $1,254.00 and returns of $56.00. Use the same three steps to determine her productivity. What is her selling cost? ______________ Is Susy more productive or less productive than Jill? _____________

Checking for Understanding: Calculating Nonselling Productivity

Solve the following problem. Mary unwrapped, price-tagged, and delivered 120 dresses to the Misses department during one 6-hour shift, for which she got $4.00 an hour. How many units did she process for each $1.00? ________________

Betty unwrapped, price-tagged, and delivered 65 dresses to Trends Boutique during her 4 hours on the job, at a rate of $4.00 an hour. How many units did she process for each $1.00? __

Which nonselling person was the more productive? ______________

Name ______________________________ Date ______________________________

ASSIGNMENT 21

Stockturn

Checking for Understanding: Calculating Stock Turnover Rate (Stockturn)

Solve the following problem. In your boat shop you carry a line of life jackets. Your average stock of life jackets during the year was 10. During this same year, you sold 80 life jackets. What was the stockturn rate in units for life jackets that year? ____________________

Checking for Understanding: Estimating Stock Turnover

Solve the following problem. If the stock turnover rate on your life jackets was found to be 0.5 for an average month, what could you estimate the stockturn rate for the year to be? ________

Checking for Understanding: Profits and Stockturn

The stock turnover rate is important in measuring profits in dollars and in setting prices for merchandise. Would you rather have a 40% profit margin with three stockturns a year, or a 25% profit margin with nine stockturns per year? ______________________________

Example A: If you have a retail value of stock of $1,000.00 with a 40% profit margin and a stockturn rate of 3 per year:

Example B: If you have a retail value of stock of $1,000.00 with a 25% profit margin and a stockturn rate of 9 per year:

Checking for Understanding: Finding Capital Turnover

Solve the following problem. What would the capital turnover be if the average stock at cost was $10,000.00 and the net sales for the year total $100,000.00? ____________________

Checking for Understanding: Determining Average Stock

Solve the following problem. If beginning inventory on January 1 was $30,000.00, on February 1 was $20,500.00, and on March 1 was $20,000.00, what was the average stock for that period? ____________________

Technical Learning Concepts

Define or explain the following terms.

average stock
capital turnover
stock turnover
stock turnover rate
stockturn

Name ______________________________ Date ______________________________

ASSIGNMENT 22

Stock-Sales Ratio

Checking for Understanding: Determining the Book Inventory

Solve this problem. Bookkeeping records indicate Our Store should have had $6,000.00 worth of widgets on hand at the beginning of January. During the month, widgets worth $4,000.00 more were received. Sales of widgets totaled $6,000.00 in January. What is the retail value of widgets Our Store should have on hand at the end of January? ____________________

Checking for Understanding: Finding a Stock-Sales Ratio

The inventory at the beginning of February was $75,000.00 (retail value). Sales for February were $62,000.00. What is the stock-sales ratio for February? ____________________

Checking for Understanding: Using a Stock-Sales Ratio

The owner of a men's apparel store knows that a stock-to-sales ratio of 1.5 usually works for one class of garment. What would be the inventory required if sales of $12,000.00 are anticipated? ____________

Technical Learning Concepts

Define or explain the following terms.

BOM
book inventory
EOM
physical inventory
stock-sales ratio

Name ______________________________ Date ______________________________

ASSIGNMENT 23

Open-to-Buy

Checking for Understanding: Determining Planned Purchases

Solve the following problem. A department in an apparel store expects to sell $20,000.00 during one month. At the end of the month, the buyer wants to have $40,000.00 in the ending inventory. Expected reductions are $3,000.00. The beginning inventory is $45,000.00. What should planned purchases be? ________________

Checking for Understanding: Open-to-Buy

Solve the following problem. What is the open-to-buy April 1 if planned purchases are $150,000.00 and the merchandise already received or on order on that date totals $75,000.00?

____

Checking for Understanding: The OTB Procedure

Solve the following problem. Annette's boutique plans to sell $125,000.00 in the period from July-December. The buyer hopes to have $30,000.00 ending inventory to start the next period. Reductions are $2,000.00. The beginning inventory on July 1 was $50,000.00. On July 15th another $5,000.00 worth of merchandise had been received and $20,000.00 more was on order. At this point, what is the open-to-buy for the period? ________________

Technical Learning Concepts

Define or explain the following terms.

open-to-buy
planned purchases

Name ______________________________ Date ______________________________

ASSIGNMENT 24

The Merchandise Plan

Checking for Understanding: Developing a Merchandising Plan

In the example above, you saw how calculations were used to finish that part of the merchandising plan dealing with January. Using the information in the plan below, complete the calculations for February last year and February this year. For March, do only those calculations related to finding purchases for February.

Merchandise Plan for January-March
for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	**$40,000**	**$35,000**	$25,000	$100,000
SALES	2. Planned + 10%	**$44,000**	**$38,500**		
	3. Actual				
	B				
RETAIL	4. Last year	$80,000	$70,000	$50,000	—
STOCK	5. Planned	**$88,000**	**$77,000**		
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%	$2,000			
TIONS	8. Planned 5%	**$2,200**			
% sales	9. Actual				
	D				
PUR-	10. Last year	$32,000			
CHASES	11. Planned	**$35,200**			
IN $	12. Actual				

Checking for Understanding: Calculating Planned Purchases

Solve the following problem. A merchant plans to sell $65,000.00 in February. She wants to have $120,000.00 in inventory at the beginning of March. Planned reductions are $1,950.00. She will have $130,000.00 in inventory at the beginning of February. What should her planned purchases be? ______________________

Checking for Understanding: Calculating Markup for a Department or Store

Solve this problem. Planned sales for a department for a six-month period are $50,000.00. The same merchandise will cost $20,000.00. What is the planned markup for the entire department? __________

Technical Learning Concepts

Define the following terms.

assortment planning
inventory analysis
4-5-4 calendar
primary research
marketing mix
markdowns
markup
merchandise plan
sales analysis
secondary research
shrinkage
employee and special discounts

Name ______________________________ Date ______________________________

ASSIGNMENT 25

Purchase Orders

Checking for Understanding: Information on Purchase Orders

Answer the following questions.

1. What part of the purchase order will help ensure the merchandise gets where it should be going?
2. Which information helps make certain the merchant gets what is being ordered?
3. What information relates to how and when the order is sent?
4. Where is information affecting payment found?

Name ______________________________ Date ______________________________

ASSIGNMENT 26

Pricing Structures

Checking for Understanding: Fixed Versus Variable Pricing

You can rewrite the statements by adding sentences that tell if the example is for fixed or variable pricing.

1. Juan Vasquez needs five cars for use in his business. The salesperson offers a quantity discount if Juan buys all five cars from his company. ______________________________.
2. If Jane buys the set of china before leaving the store, she will receive a 20% discount. ______________________________
3. T-shirts at Anders Sporting Goods are priced at $6.95 each. Mr. Turner buys 25 T-shirts for the club. The club pays $173.75 for the shirts. ______________________________

Checking for Understanding: Using a Base Price

Answer the question. The base price of an item increases 10%. By what percent would the retailer increase his or her retail price? ____________________

Checking for Understanding: Keystone Pricing

Solve the problem. Compute the wholesale price of each of the following items based on the information given.

1. The Jewel Cache takes a special order from Cindy for a birthstone ring. The ring is listed in the Macco catalog for $327.00 retail. The merchandise prices in the catalog are double keystoned. How much will the ring cost the Jewel Cache? ________________
2. The Sofa Box is special ordering a sofa for Mrs. Casterini. The sofa is listed in the catalog at $1,200.00, and the prices are triple keystoned. How much will the Sofa Box pay for the sofa? ____________________

Checking for Understanding: Following a Pricing Policy

Figure each of the following prices to the nearest $0.98 of each retail dollar:

____________ $1.86
____________ $10.62

Technical Learning Concepts

Define or explain the terms.

base price
fixed pricing
keystoned pricing
odd cents pricing
price lining
variable pricing

Name ________________________________ Date ________________________________

ASSIGNMENT 27

Markup

Checking for Understanding: Computing Retail Price from Cost and Markup %

Solve the following problem. A travel alarm cost the merchant $6.00. By examining past records and past experience, the merchant estimates that a 45% markup will be needed to cover expenses and have money left over for a profit. What will the markup be in dollars? ___________ What will the retail price of the travel alarm be? ___________________

Checking for Understanding: Computing Markup and Cost Percentage from Retail Price

Solve the following problem. The retail price of a thermos at Zetler's is $29.95. The thermos cost Zetler's $17.37. What was the markup for the thermos in dollars? ____________________ What was the markup percentage of the thermos? ____________ What was the cost percentage of the thermos? _____________

Technical Learning Concepts

Define or explain these terms.

cost
expenses
markup
markon
overhead
retail price

Name ______________________ Date ______________________

ASSIGNMENT 28

Margins and Profits

Checking for Understanding: Determining Margin in Dollars

Sungear also carries a line of beach towels. Their most popular towel sells for $22.95. The towel costs them $13.00. How much is Sungear's margin on the towel? ____________

Checking for Understanding: Determining Margin in Percentage

In the problem above, the beach towel sells for $22.95 (100%) retail price. The cost is $13.00. What percentage of the retail price would the $13.00 cost be? ____________

Checking for Understanding: Determining Selling Price when Margin Percentage and Cost Are Given

Suppose a store determines that its expenses are 28% and it wants a profit of 8%. What would the selling price have to be for an item that costs $15.00? ____________

Checking for Understanding: Determining Selling Price When Cost in Dollars and a Cost Percentage Are Specified

The store management says the cost of items must be 58% of selling price. What will be the selling price if an item costs $10.00? ____________

Technical Learning Concepts

Define the following terms.

selling price
gross margin
operating expenses
net profit

Name ______________________________ Date ______________________________

ASSIGNMENT 29

Break-Even Point

Checking for Understanding: Determining the Break-Even Point

Donnell's Doll Shop has fixed expenses of $900.00 per month, and variable expenses and costs that average $10.00 per doll. How many dolls does Donnell's have to sell at an average retail price of $30.00 per doll before she begins to make a profit? ________________

Checking for Understanding: Reading a Break-Even Chart

Using the chart in figure 2, estimate the profit that would be made if 110 units are sold. Check your results mathematically.________________

Technical Learning Concepts

Define these terms.

break-even point
fixed costs (or *expenses*)
variable costs (or *expenses*)

Name ______________________ Date ______________________

ASSIGNMENT 30

Income Statement

Checking for Understanding: Preparing an Income Statement

Blenco Foods
Income Statement
For the Year Ending December 31, 19__

Operating Income

1. Sales $__________
2. Less returns, discounts, allowances $__________
3. = Net sales $__________
4. Less cost of goods sold $__________
5. = GROSS MARGIN $__________

Operating Expenses

6. Employee compensations $__________
7. Rent $__________
8. Utilities $__________
9. Advertising expense $__________
10. Property upkeep $__________
11. = TOTAL OPERATING EXPENSE – $__________
12. NET OPERATING INCOME $__________

Other Income

13. Total lease income $__________
14. Vending machine income $__________
15. = TOTAL OTHER INCOME $__________
16. NET INCOME $__________

Name ______________________________ Date ______________________________

ASSIGNMENT 31

Balance Sheets

Checking for Understanding: Calculating Net Worth and Liabilities

If Corona's fixed assets are $60,000.00, their current assets are $40,000.00 and their liabilities are $70,000.00, what is the net worth (equity) of the company? ______________

Lexington's assets are $200,000.00 and the owner's equity is $75,000.00. How much does Lexington owe? ________________

Technical Learning Concepts

Define these terms.

assets
balance sheet
current assets
equity
fixed assets
liabilities
net worth
proprietorship
solvent

Name ________________________________ Date __________________________________

ASSIGNMENT 32

Preparing and Using Graphs and Charts

Checking for Understanding: Developing Graphs and Charts

The easiest way to develop the graphs and charts would be to use graph paper. Such a graph can be drawn with 1/4-inch squares.

1. The Visimarketing Corporation is a contract company that builds visual displays for several stores in the state. Their gross sales for the first three months of the year are shown below. Plot a graph showing the trend in Visimarketing's gross sales for the three-month period. The figures are April, $36,000.00; May, $26,000.00; and June, $29,000.00.

2. Draw a vertical bar chart comparing each month's sales with the three-month sales total.

3. Draw a bar chart and a pie chart showing how much the sales for April were in comparison with the overall sales for the three-month period.

Technical Learning Concepts

Define these terms.

visualization
chart
bar chart
graph
pie chart

Name ______________________________ Date ______________________________

ASSIGNMENT 33

Checking Accounts

Checking for Understanding: Checking Accounts

(1) List five advantages of using a checking account.

(2) List four disadvantages of using a checking account.

Checking for Understanding: Choosing a Bank

List six factors to consider when choosing a bank.

Checking for Understanding: Terms or Types of Accounts

List three types of accounts, based on signatures, and explain the differences.

Checking for Understanding: Opening an Account

Fill out the following signature card using the signature that you plan to use throughout the rest of this assignment:

Do not write above this line.	Account Number

Terms of Account	**Signatures Authorized on This Account**
Single name account	1.______________________________

Two or more name account, joint tenancy with right of survivorship

1.____

2.____

Two or more name account, not joint tenancy with right of survivorship

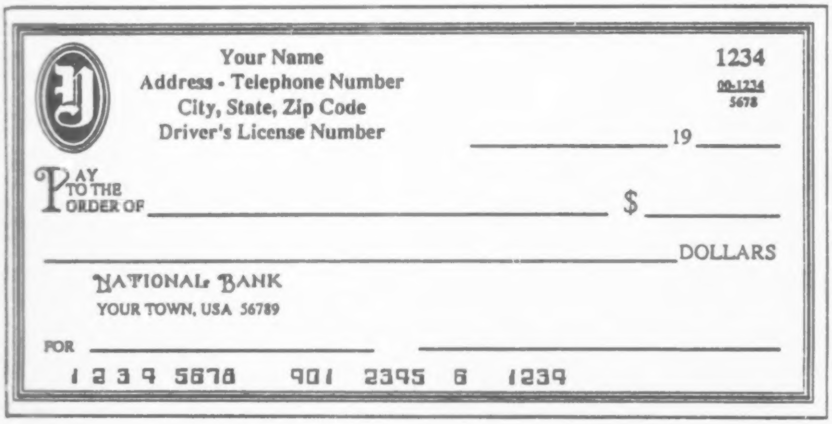
1.____

2.____

1. ADDRESS		2. ADDRESS	
CITY/ZIP	HOME PHONE	CITY/ZIP	HOME PHONE
EMPLOYER		EMPLOYER	
CITY	PHONE	CITY	PHONE
BIRTH DATE		BIRTH DATE	
SOCIAL SECURITY NUMBER		SOCIAL SECURITY NUMBER	
MOTHER'S MAIDEN NAME		MOTHER'S MAIDEN NAME	

Checking for Understanding: Using a Checking Account

Write three checks using your own information and identification.



Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

________________ 19______

PAY TO THE ORDER OF ____________________________ $________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ________________ ____________________

1 2 3 4 5678 901 2345 6 1234

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

________________ 19______

PAY TO THE ORDER OF ________________________________ $________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ____________________ __________________________

1 2 3 4 5678 901 2345 6 1234

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

________________ 19______

PAY TO THE ORDER OF ________________________________ $________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ____________________ __________________________

1 2 3 4 5678 901 2345 6 1234

Checking for Understanding: Keeping Up with How Much You Spend

On April 6, 1991, Jo bought a pair of wind shorts from the Track and Field Shop. The shorts cost $22.98. On the blank check below, demonstrate the way Jo should have written the check, then subtract the amount from the check register to find the new balance.

CHECK NO. ____________
DATE __________ 19___
TO ________________
AMOUNT ____________
$ ________________
FOR _______________
PREV. BALANCE __________
BALANCE ____________

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234
00-1234
5678

________________ 19______

PAY TO THE ORDER OF ________________________________ $________

____ DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR ____________________ __________________________

1 2 3 4 5678 901 2345 6 1234

Checking for Understanding: Endorsements

On the back sides of the checks below, write examples of a blank endorsement, a restrictive endorsement, a corrective endorsement, and a transfer endorsement.

Technical Learning Concepts

Define these terms.

bank statement
cancelled checks
check
checking account
cosignature account
endorsement
FDIC
ID
individual account
joint account
negotiable
outstanding checks
overdrawn
passbook account
payee
payor
postdated check
reconcile
service charge
signature card
stop payment

Name ______________________________ Date ______________________________

ASSIGNMENT 34

Loan Applications

Checking for Understanding: Determining Effective Interest Rate

Michael has borrowed $300.00 for 12 months. He will make one payment at the end of the year, and the interest paid at that time will be $36.00 total. What equation is used? What is the actual interest rate he is paying? ________________________

Suppose Michael had borrowed $300.00 for 12 months, to be repaid in monthly installments. His total interest paid for the year is still $36.00. What equation should be used? What percent is he actually paying? ______________________

Technical Learning Concepts

Define these terms.

APR, or *annual percentage rate*
collateral
commercial full-service banks
credit unions
effective interest rate
finance companies
installment loan
interest
principal
savings and loan associations
secured loan
simple interest rate
stated interest rate
unsecured loan

Name________________________________ Date________________________________

Guided Practice on Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Unit I: Assignment 1

1. Arrange these numbers in columns, then add them: $22.50, $13.00, $12.66, and $19.44.

2. Arrange these numbers in columns, then add them: $4.00, $5.00, $6.00, $18.75, $0.15, and $19.99.

Add the following columns of numbers:

3.	4.	5.	6.	7.
66	39	22	45	32
18	19	44	55	99
66	12	99	33	66
12	44	22	22	22

Subtract the following columns:

8.	9.	10.
22	99.12	55.00
− 11	− 18.33	− 16.33

Add the following fractions:

11.	12.	13.
6 3/4	8 9/10	12 2/4
+ 4 1/2	+ 6 8/10	+ 2 1/2

Subtract the following fractions:

14.	15.	16.
9 3/4	12 2/3	9 1/6
− 8 1/4	− 11 1/3	− 7 1/3

Give the decimal and fraction equivalents for these percents:

17. 50 percent = ____________ = ______________
18. 100 percent = ___________ = ______________
19. 20 percent = ____________ = ______________

Name________________________________ Date__________________________________

Independent Practice on Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Unit I: Assignment 1

1. Arrange these numbers in columns, then add them: $38.50, $12.00, $15.69, and $18.76.

2. Arrange these numbers in columns, then add them: $5.00, $9.00, $8.00, $12.75, $0.12, and $22.89.

Add the following columns of numbers:

3. $$\begin{array}{r}67\\22\\12\\\underline{19}\end{array}$$

4. $$\begin{array}{r}49\\12\\22\\\underline{45}\end{array}$$

5. $$\begin{array}{r}33\\33\\44\\\underline{26}\end{array}$$

6. $$\begin{array}{r}65\\111\\44\\\underline{18}\end{array}$$

7. $$\begin{array}{r}31\\89\\77\\\underline{17}\end{array}$$

8. $$\begin{array}{r}324\\188\\999\\\underline{657}\end{array}$$

9. $$\begin{array}{r}667\\585\\678\\\underline{858}\end{array}$$

10. $$\begin{array}{r}173\\980\\986\\\underline{199}\end{array}$$

11. $$\begin{array}{r}3657\\4568\\5672\\\underline{8299}\end{array}$$

12. $$\begin{array}{r}8890\\6788\\7898\\\underline{9012}\end{array}$$

13. $$\begin{array}{r}8199\\9912\\7734\\\underline{7723}\end{array}$$

Subtract the following columns:

14. $$\begin{array}{r}222\\\underline{-\ 143}\end{array}$$

15. $$\begin{array}{r}199.12\\\underline{-\ 20.33}\end{array}$$

16. $$\begin{array}{r}655.00\\\underline{-\ 514.33}\end{array}$$

Add the following fractions:

17.	19 1/3	18.	6 3/4	19.	4 1/2
	22 2/3		12 1/3		6 1/2
	18 1/3		11 2/3		6 2/3

Subtract the following fractions:

20.	9 3/4	21.	12 2/3	22.	9 1/6
	−7 1/4		−10 1/3		−6 1/3

Give the decimal and fraction equivalents for these percents:

23. 25 percent = ____________ = ____________
24. 80 percent = ____________ = ____________
25. 33 percent = ____________ = ____________

Name______________________________________Date______________________

Guided Practice on Multiplication and Division

Unit I: Assignment 2

Do the following problems. If necessary, use decimal equivalents with up to three digits after the decimal point in your calculations. For example, 0.666 can be used to calculate more accurately than 0.67. Other answers should have no more than two digits after the decimal. Round up anything over two digits. 1.331 would become 1.34.

1. 654 × 34 = ______________
2. 782 × 25 = ______________
3. 82,992 divided by 24 = ______________
4. 18,612 divided by 17 = ______________
5. 439.78 × 0.875 = ______________
6. 8.264 × 0.3264 = ______________
7. 10.4 divided by 26 = ______________
8. 0.167445 divided by 5.49 = ______________
9. The decimal equivalent of 3/8 is______________
10. The decimal equivalent of 1/7 is______________

Name________________________________ Date________________________________

Independent Practice on Multiplication and Division

Unit I: Assignment 2

Do the following problems. If necessary, use decimal equivalents with up to three digits after the decimal point in your calculations. For example, 0.334 is the decimal equivalent of 1/3. For answers that are in dollars and cents, round the result up to the nearest penny. For example, $2.4444 in an answer would become $2.45.

Practice Problems

1. 32 × 34 = ____________________
2. 112 × 18.56 = ____________________
3. 620 × 18 = ____________________
4. 12 × $62.50 = ____________________
5. 111 × 999 = ____________________
6. 62 × $2.50 = ____________________
7. 624 divided by 24 = ____________
8. 912 divided by $16.50 = ____________
9. 1,000 divided by 20 = ____________
10. 999 divided by $12.45 = ____________
11. 12 divided by 1.5 = ____________
12. 888 divided by 16.50 = ____________

Application Problems

1. Danny earns $450.00 a month. During each month he plans to spend 1/4 of this amount for his car payment, 1/5 for lunches, 1/6 for clothing, 1/8 for recreation, and save the rest. How much money will Danny save, and how much will he spend on each item? Car payment ____________ Lunches ____________ Clothing ____________ Recreation ____________ Savings ____________

   $450.00 × 0.25 =
   $450.00 × 0.20 =
   $450.00 × 0.167 =
   $450.00 × 0.125 =
   Total

   $450.00
   − ______
   = savings

2. Alfred Ellis owned a 2/3 interest in a business valued at $75,000.00. If he sold 1/6 of his holdings in the business, how much should he have received? Use a decimal equivalent of 0.167.

   Answer = ________________________________

3. When H.H. Theis made his will, he divided his estate of $240,000.00 among three children. If Joyce received 1/4 of the estate and Lou was willed 3/8 of the estate, how much would be left for the third child? Answer ____________

   $240,000 × 0.25 = ____________ Joyce's share
   $240,000 × 0.375 = ____________ Lou's share

_________ + ________ = ________ their total

$240,000 – ___________ = ___________ third child's share.

4. Find the cost of 232 pounds of tomatoes at 62 1/2 cents per pound.
Answer _________________

5. Find the cost of 84 pints of buttermilk at 83 1/3 cents per pint. Answer ___________________

6. Find the decimal equivalent of 1/9. Answer ______________________

7. Find the decimal equivalent of 1/3. Answer ______________________

Name________________________________ Date__________________________________

Guided Practice on Weights and Measures

Unit I: Assignment 3

Change the following weights and measurements as indicated, and show your work.

1. 3,660 in. to ft =

2. 4,824 in. to ft =

3. 7,236 in. to yd =

4. 176 pt to qt =

5. 288 qt to gal =

6. 256 pt to gal =

7. 496 oz to lb =

8. 54 ft 5 in. to inches =

9. 621 yd, 2 ft, 9 in. to inches =

10. 438 qt to pt =

Change the following abbreviations to the weight or measure term they represent:

11. pt
12. oz
13. ft
14. gal
15. yd
16. in.

Use the table for metric/U.S. conversions to answer the following questions.

17. What would you tell a customer who wants to know how many pints are in a 2-liter bottle? _______________

18. If someone buys 2 kilograms of butter, how much butter are they getting in pounds? ________

19. About how many bushels do you get if you buy 18 liters of produce? ____________________

20. How many pints are in 3 liters? ____________

Name ______________________________ Date ________________________________

Independent Practice on Weights and Measures

Unit I: Assignment 3

Solve the following problems and show your work. You may consult the chart of U.S. weights and measures.

1. How many feet of fence will be needed to fence a farm 2.5 miles around? Feet?__________ Yards? __________ Rods? __________________

2. How many pecks of apples in 586 bushels? __________ How many quarts? __________

3. 876 gallons of ice cream were sold. How many quarts does this represent? __________

4. A driveway 67 feet long and 8 feet wide is filled to a depth of 4 inches with gravel. How many cubic feet of gravel were used? ____________

5. A buyer bought the following shirts: 9 dozen white, 13 dozen blue, 25 dozen tan. How many gross were purchased? ____________________

Without consulting the table of U.S. weights and measures, make the following conversions:

6. 52 gal to qt __________________

7. 51 gal, 2 qt, 3 pt to pt __________

8. 23 lb, 11 oz to oz _____________

Without consulting the conversion table for U.S. and metric units, make the following conversions.

9. 4 kilograms = _______________ pounds

10. 4 liters = ________________ pints

Name ______________________________ Date ________________________________

Guided Practice on Simple Interest

Unit II: Assignment 4

Use the cancellation or shortcut method, and round up the answer:

1. Find the interest on $2,000.00 for 30 days at 12%. Answer ______________
2. Find the interest on $950.00 for 120 days at 6%. Answer ______________
3. Find the interest on $1,800.00 for 80 days at 18%. Answer ______________

Use the simple interest table and round up:

4. Find the interest on $340.00 for 50 days at 2%. Answer ______________
5. Find the interest on $480.00 for 25 days at 6%. Answer _____

SIMPLE INTEREST TABLE

Interest on $1.00 on a 360-Day Year Basis

Days	1%	2%	3%	4%	5%	6%
1	.00003	.00006	.00008	.00011	.00014	.00017
2	.00006	.00011	.00017	.00022	.00028	.00033
3	.00008	.00017	.00025	.00033	.00042	.00050
4	.00011	.00022	.00033	.00044	.00056	.00067
5	.00014	.00028	.00042	.00056	.00069	.00083
6	.00017	.00033	.00050	.00067	.00083	.00100
7	.00019	.00039	.00058	.00078	.00097	.00117
8	.00022	.00044	.00067	.00089	.00111	.00133
9	.00025	.00050	.00075	.00100	.00125	.00150
10	.00028	.00056	.00083	.00111	.00139	.00167
11	.00031	.00061	.00092	.00122	.00153	.00183
12	.00033	.00067	.00100	.00133	.00167	.00200
13	.00036	.00072	.00108	.00144	.00181	.00217
14	.00039	.00078	.00117	.00156	.00194	.00233
15	.00042	.00083	.00125	.00167	.00208	.00250
16	.00044	.00089	.00133	.00178	.00222	.00267
17	.00047	.00094	.00142	.00189	.00236	.00283
18	.00050	.00100	.00150	.00200	.00250	.00300
19	.00053	.00106	.00158	.00211	.00264	.00317
20	.00056	.00111	.00167	.00222	.00278	.00333
21	.00058	.00117	.00175	.00233	.00292	.00350
22	.00061	.00122	.00183	.00244	.00306	.00367
23	.00064	.00128	.00192	.00256	.00319	.00383
24	.00067	.00133	.00200	.00267	.00333	.00400
25	.00069	.00139	.00208	.00278	.00347	.00417
26	.00072	.00144	.00217	.00289	.00361	.00433
27	.00075	.00150	.00225	.00300	.00375	.00450
28	.00078	.00156	.00233	.00311	.00389	.00467
29	.00081	.00161	.00242	.00322	.00403	.00483
30	.00083	.00167	.00250	.00333	.00417	.00500

ME I: (b)(11)(B)

Name ______________________________ Date ________________________________

Independent Practice on Simple Interest

Unit II: Assignment 4

Use the cancellation method or shortcut method, and round up:

1. Find the interest on $150.00 for 50 days at 12%. Answer _______________

2. Find the interest on $2,250.00 for 30 days at 12%. Answer _______________

3. Find the interest on $4,000.00 for 120 days at 18%. Answer _______________

4. Find the interest on $1,700.00 for 60 days at 12%. Answer _______________

5. Find the interest on $54.60 for 6 days at 6%. Answer _______________

6. Find the interest on $1,212.00 for 30 days at 6%. Answer _______________

7. Find the interest on $420.00 for 120 days at 18%. Answer _______________

Use the interest table, and round up:

8. Find the interest on $160.00 for 24 days at 3%. Answer _______________

9. Find the interest on $123.00 for 25 days at 13%. Answer _______________

10. Find the interest on $410.00 for 19 days at 18%. Answer _______________

SIMPLE INTEREST TABLE

Interest on $1.00 on a 360-Day Year Basis

Days	1%	2%	3%	4%	5%	6%
1	.00003	.00006	.00008	.00011	.00014	.00017
2	.00006	.00011	.00017	.00022	.00028	.00033
3	.00008	.00017	.00025	.00033	.00042	.00050
4	.00011	.00022	.00033	.00044	.00056	.00067
5	.00014	.00028	.00042	.00056	.00069	.00083
6	.00017	.00033	.00050	.00067	.00083	.00100
7	.00019	.00039	.00058	.00078	.00097	.00117
8	.00022	.00044	.00067	.00089	.00111	.00133
9	.00025	.00050	.00075	.00100	.00125	.00150
10	.00028	.00056	.00083	.00111	.00139	.00167
11	.00031	.00061	.00092	.00122	.00153	.00183
12	.00033	.00067	.00100	.00133	.00167	.00200
13	.00036	.00072	.00108	.00144	.00181	.00217
14	.00039	.00078	.00117	.00156	.00194	.00233
15	.00042	.00083	.00125	.00167	.00208	.00250
16	.00044	.00089	.00133	.00178	.00222	.00267
17	.00047	.00094	.00142	.00189	.00236	.00283
18	.00050	.00100	.00150	.00200	.00250	.00300
19	.00053	.00106	.00158	.00211	.00264	.00317
20	.00056	.00111	.00167	.00222	.00278	.00333
21	.00058	.00117	.00175	.00233	.00292	.00350
22	.00061	.00122	.00183	.00244	.00306	.00367
23	.00064	.00128	.00192	.00256	.00319	.00383
24	.00067	.00133	.00200	.00267	.00333	.00400
25	.00069	.00139	.00208	.00278	.00347	.00417
26	.00072	.00144	.00217	.00289	.00361	.00433
27	.00075	.00150	.00225	.00300	.00375	.00450
28	.00078	.00156	.00233	.00311	.00389	.00467
29	.00081	.00161	.00242	.00322	.00403	.00483
30	.00083	.00167	.00250	.00333	.00417	.00500

Name ______________________________ Date ________________________________

Guided Practice on Percentage, Base, and Rate

Unit II: Assignment 5

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

1. Tammy earned $450.00 in two weeks. She put $150.00 in her savings account for college. What percent of her earnings did she save? Answer ____________________

2. A buyer had to reduce inventory by 38%. If the merchandise was valued at $11,520,000.00, how much of a reduction was taken? Answer ____________________

3. Michelle has been shopping for a stereo. She has saved $320.00. This is 80% of the retail price of the stereo. What is the retail price of the stereo? Answer ________________

4. Edith Brown has charged $2,550.00 on her First County bank card, which has a credit limit of $5,000.00. What percentage of her credit limit is left? Answer __________________

5. Erin Keely manages CompuFun. The computer equipment and software that is used for demonstrations is valued at $45,535.00. The annual sale on demos has reduced this by 72%. How much demonstration equipment is left, in dollar value? Answer ________________

Name ______________________________ Date ________________________________

Independent Practice on Percentage, Base, and Rate

Unit II: Assignment 5

For each of the following, first tell whether you found percentage, base, or rate, then give the numerical answer.

1. Thomas spent 40% of his monthly earnings of $660.00 on repaying a revolving charge. How much did he spend in dollars? Answer ______________________

2. McGillicuddies' Tartan Tie Place spent 18% of its gross income of $80,000.00 each quarter on advertising. How much did it spend on advertising? Answer ______________________

3. Johnson's Jar Shoppe spent $60,000.00 buying jars in 1989. It sold the jars for $100,000.00. What percent of its total sales figure for jars was spent on buying jars? Answer __________

4. The payment on Mary's car was $212.00 per month. With gasoline and other related expenses, she spent a total of $360.00 on the car in January. What percent of her car expenses went for car payments in January? Answer ________________________

5. Joe made a good deal on a set of golf clubs, reporting that he paid $125.00, which was only 70% of their original price. What was the original price? Answer ______________________

Name________________________________ Date____________________________________

Guided Practice on Extensions

Unit II: Assignment 6

1. On the sales slip below, enter these extensions and then add the amounts in the amount column to get a merchandise total: 3 ties at $22.50 each, 1 tie at $17.50, and 12 handkerchiefs at $1.75 each.

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE. TOTAL		

2. On the inventory form below, add these two items and extend them to the total retail value column: 3 12" band saws at a retail unit price of $147.50 each, and 3 saber saws at a retail price of $67.50 each.

INVENTORY FORM

Date June 12 19 91 Counted by H.T.

Page Number 3 Checked by W.L.C.

Description of Merchandise	Units on Hand	Unit Price		Total Retail Value	

Name________________________________ Date________________________________

Independent Practice on Extensions

Unit II: Assignment 6

1. Complete the price change form below by extending the items for which prices are being marked down. Note that what is extended is the unit difference for each item. They include 10 shirts being marked down from $28.00 to $17.00, and 15 shirts being marked down from $19.00 to $12.00.

PRICE CHANGE FORM

Date________________199___ Number________________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
								Total		

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ________________________________

Form ST-13

2. Extend the sales slip below and add these items to get a merchandise total (MDSE TOTAL): 5 pairs of socks at $4.50 each, 1 tie tack at $19.50, and 6 undershirts at $9.00 each.

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE. TOTAL		

Name____________________________Date________________________________

Guided Practice on Making Change

Unit III: Assignment 7

1. List the steps in making change after the change amount has been calculated automatically by a mechanical or electronic cash register or calculator.

2. List the steps in making change when you must make the change calculation manually.

3. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $50.00 for a purchase of $17.45. Also write what you would say to the customer if manual calculation is required.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

4. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $50.00 for a purchase of $17.45. In this case, the cash register shows that the change should be $32.55.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

ME I: (b)(11)(C)

Name______________________________ Date______________________________

Independent Practice on Making Change

Unit III: Assignment 7

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $10.00 for a purchase of $5.25. Assume you do have half dollars. Also write what you would say to the customer if manual calculation is required.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

2. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $100.00 for a purchase of $67.95. You are out of half dollars. In this case, the cash register shows that the change should be $32.05.

   Pennies–Nickels–Dimes–Quarters–Half Dollars–$1 Bills–$5 Bills–$10 Bills–$20 Bills

Name________________________________ Date________________________________

Guided Practice on Cash Register Operation

Unit III: Assignment 8

1. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $210.00.

Pennies	*125*	= 125 ×	.01	=	______	in pennies
Nickels	*100*	= 100 ×	.05	=	______	in nickels
Dimes	*25*	= 25 ×	.10	=	______	in dimes
Quarters	*30*	= 30 ×	.25	=	______	in quarters
Halves	*5*	= 5 ×	.50	=	______	in halves
$1s	*25*	= 25 ×	1.00	=	______	in ones
$5s	*15*	= 15 ×	5.00	=	______	in fives
$10s	*5*	= 5 ×	10.00	=	______	in tens
$20s	*2*	= 2 ×	20.00	=	______	in twenties
		Total		=	______	

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ______ at ______?

2. Using the information in the table below, complete the proof of cash slip to close out your cash bank.

Cash bank—$200.00
Cash received—$132.00
Cash paid out—$43.00
Actual cash in register—$289.00

Proof of Cash Slip	.000 T	(Register reading)
Opening Cash	$200.00	
Cash Received (includes checks)	+ ______	
Cash Paid Out	− ______	
Cash that should be in the register	______	
Actual cash (includes checks) in the register	− ______	
Result		

Overage______________ Shortage______________ Balanced______________

ME I: (b)(11)(C)

Name______________________________ Date______________________________

Independent Practice on Cash Register Operation

Unit III: Assignment 8

1. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $190.00.

Pennies *75* = 75 × .01 = ______ in pennies
Nickels *200* = 200 × .05 = ______ in nickels
Dimes *40* = 40 × .10 = ______ in dimes
Quarters *20* = 20 × .25 = ______ in quarters
Halves *6* = 6 × .50 = ______ in halves
$1s *25* = 25 × 1.00 = ______ in ones
$5s *3* = 3 × 5.00 = ______ in fives
$10s *5* = 5 × 10.00 = ______ in tens
$20s *4* = 4 × 20.00 = ______ in twenties
Total = ______

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ______ at ______?

2. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $182.90.

Pennies *115* = 115 × .01 = ______ in pennies
Nickels *150* = 150 × .05 = ______ in nickels
Dimes *30* = 30 × .10 = ______ in dimes
Quarters *25* = 25 × .25 = ______ in quarters
Halves *10* = 10 × .50 = ______ in halves
$1s *20* = 20 × 1.00 = ______ in ones
$5s *10* = 10 × 5.00 = ______ in fives
$10s *7* = 7 × 10.00 = ______ in tens
$20s *1* = 1 × 20.00 = ______ in twenties
Total = ______

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ______ at ______?

3. Using the information below, complete the proof of cash slip to close out your cash bank.

Cash bank—$100.00
Cash received—$17.59
Cash paid out—$5.88
Actual cash in register—$111.71

Proof of Cash Slip .000 T (Register reading)

Opening Cash ______

Cash Received (includes checks) + ______

Cash Paid Out − ______

Cash that should be in the register ______

Actual cash (includes checks) in the register − ______

Result

Overage______ Shortage______ Balanced______

ME I: (b)(11)(B)(C)

Name ______________________ Date______________________

Guided Practice on Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Unit III: Assignment 9

1. List six types of information you might find on a sales slip.

2. What might be done if an item is returned?

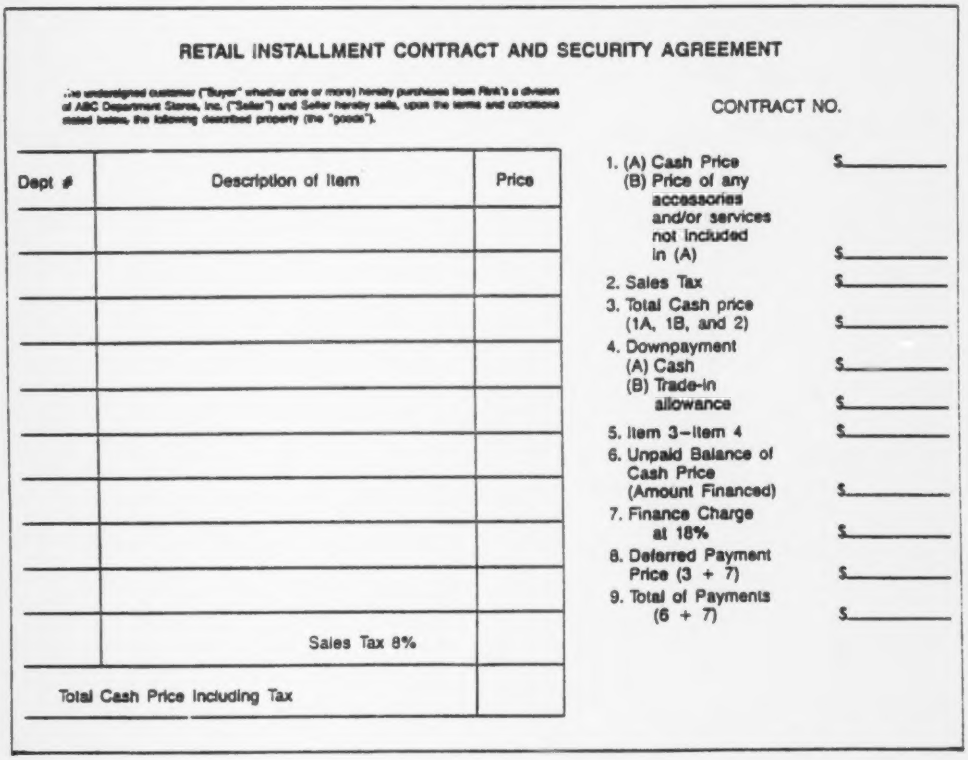
3. What might be done in the case of an even exchange?

4. What might be done if an item is exchanged for one of greater value?

5. What might be done if an item is exchanged for one of lesser value?

6. Calculate the sales tax for 75 cents, using a sales tax rate of 8%. ________

7. Using this information, do the calculations needed for the top half of the retail installment contract provided. A camcorder is being purchased for $898.88. The sales tax rate is 8%. The finance charge is 18%. A $100.00 down payment is made. There is no trade-in.



RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

The undersigned customer ("Buyer" whether one or more) hereby purchases from Rink's a division of ABC Department Stores, Inc. ("Seller") and Seller hereby sells, upon the terms and conditions stated below, the following described property (the "goods").

CONTRACT NO.

Dept #	Description of Item	Price
	Sales Tax 8%	
Total Cash Price Including Tax		

1. (A) Cash Price $________
   (B) Price of any accessories and/or services not included in (A) $________
2. Sales Tax $________
3. Total Cash price (1A, 1B, and 2) $________
4. Downpayment
   (A) Cash $________
   (B) Trade-in allowance $________
5. Item 3–Item 4 $________
6. Unpaid Balance of Cash Price (Amount Financed) $________
7. Finance Charge at 18% $________
8. Deferred Payment Price (3 + 7) $________
9. Total of Payments (6 + 7) $________

ME I: (b)(11)(B)(C)

Name ______________________________ Date________________________________

Guided Practice on Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Unit III: Assignment 9

1. List six types of information you might find on a sales slip.

2. What might be done if an item is returned?

3. What might be done in the case of an even exchange?

4. What might be done if an item is exchanged for one of greater value?

5. What might be done if an item is exchanged for one of lesser value?

6. Calculate the sales tax for 75 cents, using a sales tax rate of 8%. _______

7. Using this information, do the calculations needed for the top half of the retail installment contract provided. A camcorder is being purchased for $898.88. The sales tax rate is 8%. The finance charge is 18%. A $100.00 down payment is made. There is no trade-in.

RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

The undersigned customer ("Buyer" whether one or more) hereby purchases from Rink's a division of ABC Department Stores, Inc. ("Seller") and Seller hereby sells, upon the terms and conditions stated below, the following described property (the "goods").

CONTRACT NO.

Dept #	Description of Item	Price
	Sales Tax 8%	
Total Cash Price Including Tax		

1. (A) Cash Price $________
   (B) Price of any accessories and/or services not included in (A) $________
2. Sales Tax $________
3. Total Cash price (1A, 1B, and 2) $________
4. Downpayment
   (A) Cash $________
   (B) Trade-in allowance $________
5. Item 3–Item 4 $________
6. Unpaid Balance of Cash Price (Amount Financed) $________
7. Finance Charge at 18% $________
8. Deferred Payment Price (3 + 7) $________
9. Total of Payments (6 + 7) $________

ME I: (b)(11)(B)(C)

Name ______________________________ Date______________________________

Independent Practice on Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Unit III: Assignment 9

1. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer__________________________

2. Record this sale which was made to Jim Stuart at Henry's Haberdashery. It is for cash, and the department is 16. Sales tax will be 8%, or 0.08.

1 knit shirt, #36323, $13.88
1 dress shirt, #48100, $19.96
6 pair hose, #66264, $4.50 each

EMPLOYEE #______________________

NAME____

ADDRESS____

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

3. Betty Carfixer charges a $99.00 mechanic's tool set to her account at Speedy's, then two days later comes back and exchanges it for one costing $149.00. What would be the difference in total prices between what she paid for the first set and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

Difference in total prices for sales is $____________________.

4. Using this information, do the calculations needed for the top half of the retail installment contract provided. A personal computer is being purchased for $2,160.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $250.00. There is no trade-in.

RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

The undersigned customer ("Buyer" whether one or more) hereby purchases from Rink's a division of ABC Department Stores, Inc. ("Seller") and Seller hereby sells, upon the terms and conditions stated below, the following described property (the "goods").

CONTRACT NO.

Dept #	Description of Item	Price
	Sales Tax 5%	
Total Cash Price Including Tax		

1. (A) Cash Price $________
   (B) Price of any accessories and/or services not included in (A) $________
2. Sales Tax $________
3. Total Cash price (1A, 1B, and 2) $________
4. Downpayment
   (A) Cash $________
   (B) Trade-in allowance $________
5. Item 3–Item 4 $________
6. Unpaid Balance of Cash Price (Amount Financed) $________
7. Finance Charge at 18% $________
8. Deferred Payment Price (3 + 7) $________
9. Total of Payments (6 + 7) $________

Name ______________________________ Date ______________________________

Guided Practice on Employee and Other Retail Discounts

Unit III: Assignment 10

Complete sales slips for the business or employee purchases described in each of the situations that follow. They are both for cash. You can make up the employee identification number and address, or DECA chapter name where needed.

1. Monica Smith, a DECA officer for her local chapter, needs to purchase napkins and candles for installation of officers. Jim's Variety Store offers nonprofit organizations a discount. She knows that she must identify herself in order to receive the 10% business discount. The merchandise she needs has a retail price of $8.75 before discounting. Items are two boxes of napkins at $1.25 each, and a package of decorative candles at $6.25. The sales tax rate is 8%.

Jim's VARIETY STORE

DATE ____________

EMPLOYEE # ____________

NAME ______________________________

ADDRESS ______________________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

2. Laura O'Hara, an associate at Danielle's Jewelry Store, wishes to purchase a bracelet, #36451, that retails for $65.00. She knows that she must identify herself in order to receive the 40% employee discount. The department is #3.

DANIELLE'S

DATE ________

EMPLOYEE #________________

NAME ________________________________

ADDRESS ________________________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

ME I: (b)(11)(B)(C)

Name ______________________ Date ______________________

Independent Practice on Employee and Other Retail Discounts

Unit III: Assignment 10

Prepare sales slips reflecting retail discounts for the following situations. The sales tax rate is 8%. Both sales are for cash. The department is No. 6. You can make up the identification or social security number needed.

1. Cindy Lyons, an employee at Arvey's Drugstore, wants to purchase cosmetics including lipstick for $4.25, blusher for $5.50, and nail polish for $3.95. She knows that she must identify herself in order to receive the 15% employee discount.

EMPLOYEE # ______________

NAME ______________________________

ADDRESS ______________________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

2. Ralph's Remodeling buys 20 gallons of white paint, #8943, for $295.00 from the Handy Home Center. This comes to $14.75 a gallon. Ralph's is entitled to a 15% builder's discount. The sales slip is to be signed by Joseph Jonas. The department is #6.

Handy home center

DATE ____________

EMPLOYEE # ____________________

NAME ____

ADDRESS ____

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
		MDSE TOTAL		
		SALES TAX		
		TOTAL		

ME I: (b)(3)(C)

Name________________________________ Date________________________________

Guided Practice on Receiving and Marking Merchandise

Unit IV: Assignment 11

1. What is a packing slip, and how is it different from an invoice?

2. List the information that might be contained on an invoice.

3. What is an apron, and why is it important to a buyer?

4. What kind of information is usually included on a price tag?

5. What are the principles of marking merchandise?

6. What is the purpose of the receiving record?

ME I: (b)(3)(C)

Name________________________ Date________________________

Independent Practice on Receiving and Marking Merchandise

Unit IV: Assignment 11

1. List the information that might be contained on a packing slip.

2. How does the packing slip relate to the receiving record?

3. How are aprons and rubber stamps used on the back of invoices related?

4. What is meant by the statement of principle about permanence of marking?

ME I: (b)(11((A)

Name________________________________ Date__________________________________

Guided Practice on Markdowns and Other Price Changes

Unit IV: Assignment 12

1. Define *markdown*.

2. Explain why markdowns are needed.

3. Why is a markdown considered a "controlled shortage"?

4. The original price of a shirt is $49.00. The sale price is $29.95. What is the amount of the markdown in dollars? ______________________ How much is the price reduction as a percent of the original price? ________________

5. David works at George's Department Store. A customer wanted to purchase the following items with the corresponding price reductions. Calculate the prices to be charged after the markdowns are taken.

   1 personal computer $1,445.00 less 20% ______________________
   1 color monitor $349.99 less 15% ___________________________
   1 printer $299.99 less 10% ________________________________

6. Record the following markdowns on the price change form.

   6 bagpipes #907 from $385.00 to $285.00
   12 music books #43 from $15.00 to $12.00
   9 soprano recorders #85 from $36.00 to $25.00

PRICE CHANGE FORM

Date *January 31* 199*1* Number

☐ Additional Markup ☐ Markdown Cancellation ☒ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
Bagpipes #907	*10*									
Music books #43	*10*									
Soprano recorders #85	*10*									
								Total		

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature

Form ST-13

ME I: (b)(11)(A)

Name________________________ Date________________________

Independent Practice on Markdowns and Other Price Changes

Unit IV: Assignment 12

1. What is the dollar amount change on a $60.00 item that is to be marked down 30%? ________
   What is the new price? ________
2. If an item is reduced from $90.00 to $60.00, what is the % of reduction? ________
3. What is the dollar amount change of a $100.00 item that is marked down 40%? ________
   What is the new price? ________
4. Ted's TV is having a Memorial Day Sale and reducing the price on several of the portable TV sets and VCR's. Use the following information to complete the price change form:

7 – 20" color #4207 from $400.00 to $299.97
12 – 13" remote color #9814 from $279.00 to $199.97
5 – 4-head VHS VCR #1062 from $440.00 to $279.97

PRICE CHANGE FORM

Date____________199__ Number____________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
								Total		

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ________________________

Form ST-13

ME I: (b)(8)(A)

Name ______________________________ Date ______________________________

Guided Practice on Taking Inventory

Unit IV: Assignment 13

1. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

2. List some of the facts a physical inventory gives to management.

3. Complete the following inventory sheet using the information provided:

Red sweatshirt, Adult sm	14351	AOS	J 4	8 units	$7.00 each
Red sweatshirt, Adult med	14352	AOS	J 4	15 units	$7.00 each
Red sweatshirt, Adult lg	14353	AOS	J 4	24 units	$7.00 each
Grey sweatshirt, Adult sm	14361	AOS	J 4	4 units	$7.00 each
Grey sweatshirt, Adult lg	14363	AOS	J 4	17 units	$7.00 each

Store or department ______________________

Inventory Form

Date __________ Counted by ____________ Page number _____ Checked by ________

Description	Stock no.	Cost code	Season code	Units on hand	Unit price	Total retail value

Total retail value __________

ME I: (b)(8)(A)

Name ______________________________ Date ________________________________

Independent Practice on Taking Inventory

Unit IV: Assignment 13

Complete the inventory sheet provided using the information below.

Red T-shirt, Adult sm	23151	MEW	B 5	8 units	$7.00 each
Red T-shirt, Adult med	23152	MEW	B 5	15 units	$7.00 each
Red T-shirt, Adult lg	23153	MEW	A 5	24 units	$7.00 each
Grey T-shirt, Adult sm	23141	MEW	B 5	4 units	$7.00 each
Grey T-shirt, Adult lg	23143	MEW	A 5	17 units	$7.00 each
Red windbreaker, Adult sm	34651	TSSN	B 5	3 units	$18.95 each
Red windbreaker, Adult lg	34653	TSSN	B 5	11 units	$18.95 each
Baseball cap, red	48852	ASW	B 5	32 units	$7.50 each
Baseball cap, white	48842	ASW	B 5	16 units	$7.50 each

Store or department ________________________

Inventory Form

Date ____________ Counted by ______________ Page number ______ Checked by __________

Description	Stock no.	Cost code	Season code	Units on hand	Unit price	Total retail value

Total retail value ____________

Name ______________________ Date ______________________

Guided Practice on Cash Discounts

Unit V: Assignment 14

Do the following problems by placing the correct information in each blank, based on the stated terms.

1. Cash discount terms on the invoice are 3/10, n/30. The invoice is dated May 23 for an amount of $3,560.00. Begin counting days the day after the invoice date.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

2. Invoice terms are 2/10, net 30 as of March 15. The invoice is dated February 28 for a net amount of $820.00.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

3. Terms are 4/15, n/45 x 30. The invoice dated December 10 is for $4,500.00.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

4. Invoice terms are 6/10, net 30, EOM. The invoice is dated April 11 for $925.00.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

Name ______________________ Date ______________________

Independent Practice on Cash Discounts

Unit V: Assignment 14

Do the following problems by placing the correct information in each blank, based on terms of payment provided.

1. The invoice is dated May 6, for merchandise costing $1,100.00 received July 28. Terms are 8/10 ROG.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

2. The invoice is dated August 11 for merchandise in the amount of $960.00 with terms of 3/10, net 30, x 60.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

3. The invoice date is April 4, for an amount of $670.00 with terms of 2/10, n/30.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

4. The invoice is dated April 30, for an amount of $1,000.00 with terms of 2/10.

   Amount saved by taking discount______________________
   Amount paid if discount taken______________________
   Last date for taking discount______________________
   Last date for paying net amount if discount not taken______________________

Name ______________________ Date ______________________

Guided Practice on Information on Invoices

Unit V: Assignment 15

1. A list of abbreviations and words you might find on an invoice follows. After each one, tell what it means and whether it refers to shipping instructions, transportation charges, or terms of payment.

   Shipped via—
   F.O.B.—
   Terms—

2. Why is it important to know the number of packages?

3. Why are shipping instructions provided on the invoice, and why are they important?

4. What is the relationship between transportation charges and cost of merchandise?

5. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

6. Which items of information on an invoice are used when checking the specific merchandise received?

ME I: (b)(11)(A)

Name______________________________ Date______________________________

Independent Practice on Information on Invoices

Unit V: Assignment 15

1. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

2. Which items of information on an invoice are used when checking the specific merchandise received?

3. Why is it important to know the number of packages?

4. Why are shipping instructions provided on the invoice, and why are they important?

5. What is the relationship between transportation charges and cost of merchandise?

ME I: (b)(11)(B)

Name ______________________________ Date ______________________________

Guided Practice on Determining Length of Time When Calculating Discounts and Interest

Unit V: Assignment 16

1. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart found in the assignment. Write your answers in the spaces provided.

____________a. June 5 to October 16
____________b. March 5 to May 16
____________c. November 10 to December 31
____________d. August 20 to November 2
____________e. May 4 to August 21
____________f. October 20 to December 5

2. In each of the following, find the exact number of days between the date in Column A and the date in Column B, which is the following year:

	Column A (this year)	*Column B (following year)*
_________a.	March 9	February 17
_________b.	January 14	April 6
_________c.	April 10	September 10
_________d.	March 15	October 31

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Name ______________________________ Date ______________________________

Independent Practice on Determining Length of Time When Calculating Discounts and Interest

Unit V: Assignment 16

1. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart found in the assignment. Write your answers in the spaces provided.

_________a. June 8 to September 10
_________b. January 2 to February 25
_________c. April 12 to September 15
_________d. August 10 to November 20
_________e. July 18 to September 30
_________f. March 12 to August 6

2. In each of the following, find the exact number of days between the date in Column A and the date in Column B, which is the following year:

Column A (this year)	*Column B (following year)*
_________a. March 2	February 27
_________b. January 1	April 16
_________c. April 7	September 24
_________d. March 7	October 19

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ______________________________ Date ______________________________

Guided Practice on Computing Wages

Unit VI: Assignment 17

Hourly wage:

1. James began working at 4:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? ____________________ His hourly wage is $4.00 per hour. What was his gross pay? ______________________

2. Joe Henderson, an employee of the Space Tech Company, is paid an hourly rate of $4.50 per hour with time and a half overtime. He is paid weekly, on the basis of a 40-hour week. During one week, he worked 44 hours. Joe's regular pay was $____________; his overtime pay was $__________. Joe's gross (total) pay for that week was $________.

Piece-rate wage:

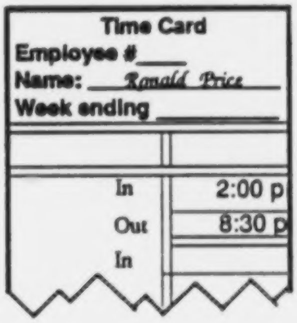
3. John Harty works on the production line at Magna Computers. His pay is based on a piece rate of $0.95 per circuit board. Last week, he completed 63 on Monday, 71 on Tuesday, 62 on Wednesday, 70 on Thursday, and 75 on Friday. How much was John's gross pay for the week? ________________________

   _______ circuit boards completed × $0.95 per board = _______ total (gross) wages earned

4. Julia Greene is paid $5.00 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. What was Julia's gross pay for the week? ____________

Computing wages from time cards:

5. The time card below shows when Ronald "punched in" and when he "punched out." Ronald's hourly rate is $4.25. How many hours did Ronald work?__________ What was his gross pay for the day's work? __________



Time Card
Employee #____
Name: Ronald Price
Week ending __________

In	2:00 p
Out	8:30 p
In	

6. Jo's time card is shown below. How many hours did she work on the two days shown? Based on an hourly rate of $4.30, what was her gross pay for those two days?

______________ hours the 1st day

+_____________ hours the 2nd day

______________ total hours

______________ gross pay

Time Card	
Employee #	
Name: Jo Lee Gray	
Week ending	
In	12:45 a
Out	5:00 p
In	10:30 a
Out	3:45 p

Technical Learning Concepts

Define the following terms.

gross pay
hourly wage
military time
overtime (OT)
piece-rate
rate
termination offense
wages
net pay

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ______________________________ Date ______________________________

Independent Practice on Computing Wages

Unit VI: Assignment 17

1. James began working at 3:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? ________ His hour rate is $4.35 per hour. What was his gross pay? __________.

2. Joe Henderson, an employee of the Space Tech Company, is paid an hourly rate of $4.00 per hour with time and a half overtime. He is paid weekly, on the basis of a 40-hour week. During one week, he worked 44 hours. Joe's regular pay was $____________; his overtime pay was $__________. Joe's gross (total) pay for that week was $__________.

3. John Harty works on the production line at Magna Computers. His pay is based on a piece rate of $0.85 per circuit board. Last week, he completed 73 on Monday, 61 on Tuesday, 82 on Wednesday, 74 on Thursday, and 66 on Friday. How much was John's gross pay for the week? ________________

   ______ circuit boards completed × $0.85 per board = $________ total (gross) wages earned

4. Julia Greene is paid $5.50 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. What was Julia's gross pay for the week? ______________

5. The time card below shows when Ronald "punched in" and when he "punched out." Ronald's hourly rate is $4.25. How many hours did Ronald work? _______________ What was his gross pay for the day's work? ____________

Time Card
Employee #
Name:
Week ending
In 10:00 a
Out 3:30 p

6. Jo's time card is shown below. How many hours did she work on the two days shown? ________________ Based on an hourly rate of $4.30, what was her gross pay for those two days?__________

Time Card
Employee #
Name:
Week ending
In 11:30 a
Out 4:00 p
In 1:00 p
Out 6:00 p

7. Basing your calculations on Tom's time card below, compute his hours worked, regular pay, overtime pay (if any), and his gross pay for the week. Tom has a one-hour lunch break each day, for which he is not paid. His hourly rate is $4.00.

Total hours worked ________ Regular pay ____________
Overtime pay ______________
Gross pay for week ______________

Time Card	
Employee #	
Name:	
Week ending	
In	11:30 a
Out	6:00 p
In	10:00 a
Out	5:00 p
In	7:45 a
Out	12:30 p
In	1:00 p
Out	10:00 p
In	9:00 a
Out	3:00 p
In	9:00 a
Out	6:00 p

Technical Learning Concepts

Match each of the following terms to the appropriate definition:

____ gross pay
____ hourly wage
____ military time
____ overtime (OT)
____ piece-rate
____ rate
____ termination offense
____ wages
____ net pay

a. money paid to employees for labor or services performed on hourly, daily, or piece-rate basis
b. all pay added together
c. also called time and a half pay
d. an established rate for each hour worked
e. amount of pay for a unit of work—pieces, hours, or days worked
f. time determined by adding 12 to hours between noon and midnight
g. a rate based on the number of units produced or finished
h. the breaking of a company rule, for which you can be fired
i. pay received after deductions are subtracted from gross pay

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ________________ Date ________________

Guided Practice on Salaries and Commissions

Unit VI: Assignment 18

1. Sam Hoff is working for a salary of $350.00 week, based on a 45-hour week. During Christmas week, Sam worked 48 hours. What was his salary for that week?____________

2. Janet Burke is the manager of the "Missy" department at Harkins Department Store. Janet is paid $880.00 per month, plus 2% commission on net sales of her department. During December, the department sold $30,000.00 with $250.00 returns. How much was Janet's gross pay for the month?____________

3. Don Gorey's quota at Evermire's Department Store is $4,000.00 per month. Don receives a salary of $925.00 per month, with a 1.5% bonus on all sales over his quota. During January, Don sold $6,000.00. What was Don's gross pay for the month of January?____________

4. Neal Bacon is a salesperson at Juneuv Jewelry. Neal works on straight commission rate of 7%. During the month of November, Neal sold $19,000.00. One customer returned a $425.00 ring, and another returned a $25.00 piece of silver flatware. What was Neal's gross pay for the month of November?____________

5. John Alford is a salesperson for a large automobile dealership. He earns 12 1/2% straight commission, plus a draw of $550.00 based on $13,350.00 monthly sales. During May, John sold $12,350.00. What was John's gross income for that month?____________

6. Use each of the following terms in a complete sentence.

commission
draw
graduated commission
monthly salary
net sales
quota
quota bonus plan
salary
salary plus
semimonthly salary

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ______________________________ Date ______________________________

Independent Practice on Salaries and Commissions

Unit VI:. Assignment 18

1. Harry Jones has a quota of $625.00 per week in sales, receives a salary of $200.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00?________

2. Jack Jenkins is a car salesperson employed on a straight commission of 10% of sales. Last month he sold cars and trucks amounting to a total of $29,425.00. What was his gross pay for the month?______________

3. Tom Sewell is a traveling representative who receives a commission of 20% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month?__________

4. J. B. Kelly is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $20,000.00 plus a bonus of 1% of the net company sales. Last year, the firm had net sales of $2,250,000.00. What were his total earnings for the year? ____

5. Kirk Broder is the manager of the menswear department at Harkins department store. Kirk is paid $780.00 per month plus 1% commission on net sales of his department. During October the department sold $22,000.00 with $450.00 returns. How much was Kirk's gross pay for the month? _____

In the space to the left of each of the following definitions, place the letter of the matching term.

____ 6. a predetermined amount to be paid to an employee each month
____ 7. a percentage of net sales that is paid to an employee
____ 8. commissions paid on sales above and beyond the employee's sales quota
____ 9. a salary that is divided in half and paid in two parts (twice each month)
____ 10. gross or total sales less returns and allowances
____ 11. to borrow against future commissions
____ 12. a percentage of net sales that is paid to the employee in addition to base salary
____ 13. a predetermined amount to be paid to an employee each month or year
____ 14. situation in which commission rate becomes greater as the net sales increase
____ 15. a predetermined, specified amount a salesperson is expected to sell to be considered a productive employee

Matching terms

a. commission
b. draw
c. graduated commission
d. monthly salary
e. net sales
f. quota
g. quota bonus plan
h. salary
i. salary plus
j. gross salary

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ______________________________ Date ________________________________

Guided Practice on Incentives and Deductions

Unit VI: Assignment 19

1. Complete the payroll ledger sheet below, and compute the wages for employees listed.

   This example has additional columns for overtime rates, which should be calculated at 1 1/2 times the regular rate. The records of individual days have been omitted and a weekly total substituted, to save space.

(Overtime rate is 1 1/2 regular rate)

Employee	Status Exempt	Total Hours	Hourly Rate	Regular Pay	OT Rate	OT Pay	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
Alberts, V.	S-1	20	4.20			–			3.00	2.00		
Collins, J.	M-1	46	6.30						30.00	11.00		

2. Match the terms on the left to the correct definitions on the right.

_____ bonus

_____ F.I.C.A.
_____ fringe benefits

_____ P.M.'s (premium money)

a. nonmonetary compensations an employee may receive in addition to his regular earnings
b. any monies taken out of earnings before receiving them
c. extra money awarded for outstanding sales performance
d. money given to encourage greater effort or increased productivity
e. Social Security

______ involuntary deductions

______ payroll deductions
______ payroll record

______ pay incentives
______ voluntary deductions

______ withholding tax
______ factors affecting filing status

f. whether the worker is single, married, filing separately from spouse, jointly with spouse, or as single-head-of-household
g. federal income tax and F.I.C.A.
h. money earned by selling specific merchandise or working hard-to-staff hours
i. federal income tax
j. ledger used to keep track of times worked and rates paid to different workers
k. Red Cross contributions and payroll savings plan

ME I: (b)(11)(B)
Entrep: (h)(6)

Name ______________________________ Date ________________________________

Independent Practice on Incentives and Deductions

Unit VI: Assignment 19

1. Complete the payroll ledger sheet below, and compute the wages for employees listed.

   This example has additional columns for overtime rates, which should be calculated at 1 1/2 times the regular rate. The records of individual days have been omitted and a weekly total substituted, to save space.

(Overtime rate is 1 1/2 regular rate)

Employee	Status Exempt	Total Hours	Hourly Rate	Regular Pay	OT Rate	OT Pay	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
Jerrod, P.	S-1	21	4.30			–			5.00	2.00		
Samuel, O.	M-1	45	6.50						30.00	15.00		

2. Define each of the following terms.

   bonus
   filing status
   F.I.C.A.
   fringe benefits
   involuntary deductions
   P.M.'s (premium money)
   payroll deductions

payroll record
pay incentives
voluntary deductions
withholding tax
exemptions

3. Give two examples of involuntary deductions that are taken out of a paycheck.

4. Give two examples of voluntary deductions that might be taken out of a paycheck.

Name ______________________________ Date ______________________________

Guided Practice on Determining Productivity

Unit VI: Assignment 20

1. If a store desires a selling cost of 5%, what quota would it set for a salesperson receiving a total pay of $530.00?_______________________

2. A salesperson in a men's furnishings department received a salary of $600.00 per month plus commissions of $650.00. His net sales were $25,534.00 for the month. What was his percentage of selling cost to the store?____________ If the store had set a selling cost of 6%, would his cost be more productive or less productive than what was set?____________

3. Sam Tucker and Jack Finch worked part-time in the receiving department of the Ballou Bayou Stores. They each earned $4.00 per hour. Sam processed 205 boxes in 30 hours of his first week on the job. Jack processed 175 boxes in 24 hours of his first week on the job.

   How many units were processed for each dollar that Sam was paid? ________________
   How many units were processed for each dollar that Jack was paid? ________________
   Who was the more productive?____________

ME I: (b)(11)(C)

Name ______________________________ Date ______________________________

Independent Practice on Determining Productivity

Unit VI: Assignment 20

1. If a store desires a selling cost of 8%, what quota would it set for a salesperson receiving a total pay of $900.00? ________________

2. Tony at Hobby Heaven received a salary of $350.00 per month plus commissions of $834.00. His net sales were $18,534.00 for the month. What was his percentage of selling cost to the store? __________ If the store's goal was a selling cost of 6%, would his selling cost be more or less productive than that goal? ____________

3. John Adams and C.C. Pinckney worked part-time in the mailing room of a wholesaler. They each earned $4.00 per hour. John prepared 300 boxes in 30 hours of his first week on the job. C.C. prepared 240 boxes in 24 hours of his first week on the job. How many units were processed for each dollar that John was paid? ____________ How many units were processed for each dollar that C.C. was paid? ____________ Who was the more productive? ________________

311

ME I: (b)(11)(A)
Entrep: (h)(6)

Name ______________________ Date ______________________

Guided Practice on Stockturn

Unit VII: Assignment 21

1. What is stock turnover rate, and how does the merchant use it?

2. By what formula is stock turnover rate measured?

3. Why does a merchant measure capital turnover rate?

4. What formula does a merchant use to determine capital turnover rate?

5. The net sales for a year in a department were $400,000.00. The inventory at the beginning of the year was $115,000.00 at retail, and at the end of the year it was $125,000.00 retail. What was the stockturn? ______________

6. The net sales for a three-month period amounted to $375,000.00. The monthly inventories at retail were as follows:

Beginning inventory	July 1	$122,500
	July 31	97,000
	August 31	86,000
	September 30	89,500
		$395,000

a. Find the average inventory. ______________

b. Find the stockturn for the three-month period. ______________

c. Estimate the stockturn for the year. ____________________

d. If the average stock at cost for the period was $60,000.00, what was the capital turnover for the period? __________________

ME I (b)(11)A)
Entrep: (h)(6)

Name ______________________ Date ______________________

Independent Practice on Stockturn

Unit VII: Assignment 21

1. The Melletic Company has net sales of $220,000.00 and an average inventory of $11,000.00. What would their stock turnover rate be? ____________

2. In your boat shop you carry a line of life jackets. Your average stock of life jackets during the year was 10. During this same year, you sold 80 life jackets. What was the stock turnover rate for life jackets that year? ____________

3. If the stock turnover rate on riding shorts was found to be 0.10 for an average month, what would you estimate the stock turnover rate for the year to be? ____________

4. Would you rather have a 35% profit margin with four stockturns a year, or a 20% profit margin with eight stockturns per year? ____________ Why? ____________

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? ____________

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? ____________

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. __________

ME I: (b)(8)(B)
ME II: (c)(3)(D)

Name ______________________ Date ______________________

Guided Practice on Stock-Sales Ratio

Unit VII: Assignment 22

1. At the beginning of the month, the inventory for the glove department was $45,230.00 at retail. During the month, $32,300.00 worth of merchandise was sold and $29,240.00 worth of merchandise was received. What was the EOM inventory? ______________ What would be the BOM inventory for the subsequent month? ______________________

2. If the amount of net sales was $42,000.00 and BOM stock was $52,000.00, what would be the stock-sales ratio? ________________

3. If net sales for the month of January were $30,000.00 and the BOM stock was $44,000.00, what would the stock-sales ratio be? ______________

4. If the desired stock-sales ratio of a department is 2, how much stock should be on hand in order to sell $4,000.00 worth of merchandise during a period? ____________

ME I: (b)(8)(B)
ME II: (c)(3)(D)

Name ______________________ Date ______________________

Independent Practice on Stock-Sales Ratio

Unit VII: Assignment 22

1. If the amount of net sales was $22,000.00 and BOM stock was $32,000.00, what would be the stock-sales ratio? ____________

2. At the beginning of November, the inventory for the the coat department was $55,230.00 at retail. During November, $42,300.00 worth of merchandise was sold and $19,420.00 worth of merchandise was received. What was the EOM inventory? ____________ The BOM inventory for December? ____________

3. If net sales for the month of October were $60,000.00 and the BOM stock was $74,000.00, what would the stock-sales ratio be? ____________

4. If the desired stock-sales ratio is 3.5, how much in inventory should be on hand in order to sell $5,000.00 worth of merchandise in a period? ____________

Name ______________________________ Date ________________________________

Guided Practice on Open-to-Buy

Unit VII: Assignment 23

1. Explain why the open-to-buy concept is an important buying tool.

2. If planned inventory for the beginning of a month is $35,000.00, ending inventory is $37,000.00, reductions are $700.00, and planned sales are $28,000.00, what would be the planned purchases?______________________

3. If inventory for the beginning of a period of one month is $10,000.00, planned ending inventory is $15,000.00, reductions are $600.00, planned sales are $8,000.00, and there is $3,000.00 on order, what would be the open-to-buy? ____________________

4. Determine the open-to-buy for each department below. Show your calculations.

	Planned purchases	Received	On order	Open-to-buy
Ladies'	$5,600.00	$1,600.00	None	
Men's	$3,800.00	None	None	

ME I: (c)(3)(C))

Name ______________________ Date ______________________

Independent Practice on Open-to-Buy

Unit VII: Assignment 23

1. Do this part of the plan by completing the "planned purchases" spaces. Show your calculations. Assume that reductions for each month are 5% of sales.

MONTH	Planned Retail Inventory		Planned Sales	Planned reductions at 5% of sales	Planned Purchases
	BOM	EOM			
July	$12,778.00	$17,900.00	$4,000.00		
August	$17,900.00	$15,050.00	$7,500.00		
September	$15,050.00	$13,425.00	$3,550.00		
October	$13,425.00	$18,300.00	$3,900.00		
November	$18,300.00	$22,500.00	$10,000.00		
December	$22,500.00	10,100.00	$15,000.00		

2. Determine the open-to-buy for each department below. Show your calculations.

	Planned purchases	Received	On order	Open-to-buy
Ladies'	$4,560.00	$1,600.00	None	
Men's	$3,975.00	None	None	
Children's	$5,500.00	$900.00	$1,200.00	
Housewares	$19,000.00	None	$12,600.00	
Sports	$4,500.00	$850.00	$2,025.00	

3. Define *planned purchases* and *open-to-buy*, and tell how they relate to each other.

ME I: (b)(11)(A)
ME II: (c)(3)(B)(C)

Name ______________________ Date ______________________

Guided Practice on the Merchandise Plan

Unit VIII: Assignment 24

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	$80,000	$60,000	$40,000	$180,000
SALES	2. Planned +10%				
	3. Actual				
	B				
RETAIL	4. Last year				
STOCK	5. Planned				
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%				
TIONS	8. Planned 5%				
% sales	9. Actual				
	D				
PUR-	10. Last year				
CHASES	11. Planned				
IN $	12. Actual				

2. Figure the planned markup if merchandise to be sold for $100,000.00 costs $64,000.00. ____

Use terms from this list to fill in the blanks for the statements that following:

- inventory analysis
- markdowns
- secondary research
- 4-5-4 calendar
- shrinkage
- merchandise plan
- primary research
- marketing mix
- employee and special discounts
- sales analysis
- assortment planning
- markup

3. ________________ is breaking down the money to be spent into categories.

4. ____________________ is a close look at present stocks to determine their adequacy in meeting the needs, wants, and demands expressed in the sales analysis.
5. ____________________ is a way of making certain each month in a 13-week quarter begins with a Sunday and ends with a Saturday.
6. ____________________ is research conducted by the store or person who will use it.
7. ____________________ provides a balance of product or service, price, place, and promotional activity.
8. ____________________ are reductions in price from the original prices for items.
9. ____________________ is the amount that is added to the cost of the merchandise to determine the retail price.
10. ____________________ is a plan that aids the buyer in deciding how much to buy at one time.
11. ____________________ is an analysis of past sales to determine customer needs, wants, and buying habits.
12. ____________________ provides facts gathered by someone other than the person using them at the time.
13. ____________________ covers loss due to employee theft, pilferage, or bookkeeping errors.
14. ____________________ are additional reductions in the retail value of inventory.

ME I: (b)(11)(A)
ME II: (c)(3)(B)(C)

Name ______________________ Date ______________________

Independent Practice on the Merchandise Plan

Unit VIII: Assignment 24

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
A					
	1. Last year	$100,000	$80,000	$60,000	$240,000
SALES	2. Planned + 10%	$110,000	$88,000	$66,000	$264,000
	3. Actual				
B					
RETAIL	4. Last year	$200,000	$160,000	$120,000	
STOCK	5. Planned	$220,000	$176,000	$132,000	
(BOM)	6. Actual				
C					
REDUC-	7. Last year 5%	$5,000	$4,000	$3,000	
TIONS	8. Planned 5%	$5,500	$4,400	$3,300	
% sales	9. Actual				
D					
PUR-	10. Last year	$65,000	$44,000		
CHASES	11. Planned	$71,500	$48,400		
IN $	12. Actual				

2. Figure the planned markup if merchandise to be sold for $180,000.00 costs $64,000.00.

____

Fill in the blanks to make the following statements correct:

3. Breaking down the money to be spent into categories is ______________________.

4. ______________________ provides a close look at present stocks to determine their adequacy in meeting the needs, wants, and demands expressed in the sales analysis.

5. A way of making certain each month in a 13-week quarter begins with a Sunday and ends with a Saturday is called a ______________________________.

6. Research conducted by the store or person who will use it is called ____________________.

7. A balance of product or service, price, place, and promotional activity is provided by a good ________________________.

8. Reductions in price from the original prices for items are called ______________________.

9. The _________________________ is the amount that is added to the cost of the merchandise to determine the retail price.

10. A _________________ plan aids the buyer in deciding how much to buy at one time.

11. __________________ is an analysis of past sales to determine customer needs, wants, and buying habits.

12. __________________ involves facts gathered by someone other than the person using them at the time.

13. ________________________ includes loss due to employee theft, pilferage, or bookkeeping errors.

14. _________________________ are additional reductions in the retail value of inventory.

ME I: (b)(11)(B)

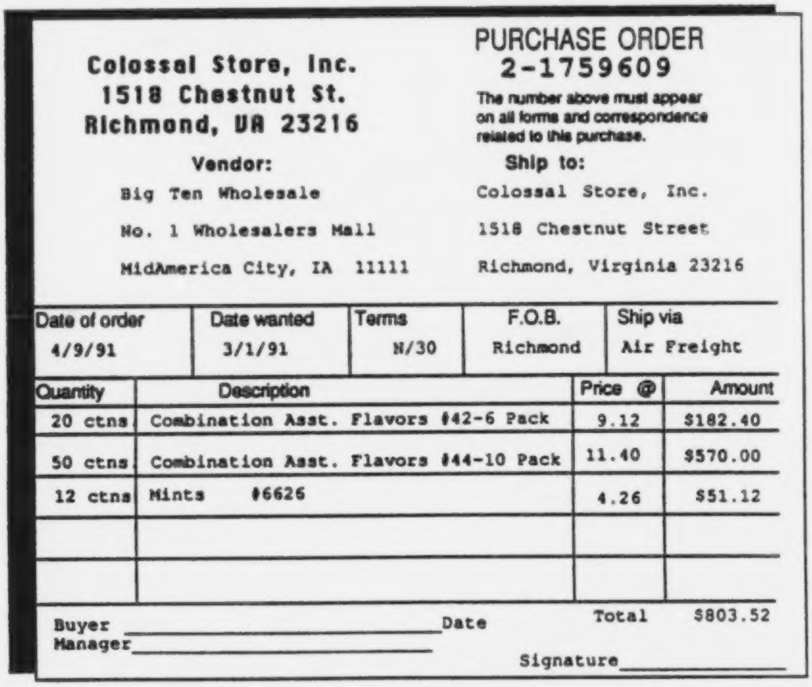
Name ______________________________ Date ________________________________

Guided Practice on Purchase Orders

Unit VIII: Assignment 25

Find the following information on the purchase order shown below. Place the labeling number beside each one:

(1) A unique number used only for each particular order. It helps keep track to determine if any orders are missing.
(2) Merchant buying the order
(3) Vendor's name and address
(4) Address to ship merchandise to
(5) Date the order was placed
(6) Date by which merchandise should be received
(7) Information on when payment is due, and discounts allowable or expected
(8) The point to which merchandise will be shipped free
(9) How merchandise is to be shipped
(10) Number in which each item is to be shipped
(11) Description of merchandise
(12) The price per unit shipped
(13) The extension obtained by multiplying quantity times the price per unit
(14) Name of person who originated the order
(15) Name of person who approved the order
(16) How much the merchandise cost
(17) Signature—of person responsible for the order



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216

PURCHASE ORDER
2-1759609
The number above must appear on all forms and correspondence related to this purchase.

Vendor:
Big Ten Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:
Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms	F.O.B.	Ship via
4/9/91	3/1/91	N/30	Richmond	Air Freight

Quantity	Description	Price @	Amount
20 ctns	Combination Asst. Flavors #42-6 Pack	9.12	$182.40
50 ctns	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns	Mints #6626	4.26	$51.12

Buyer ______________________________ Date Total $803.52
Manager ______________________________
Signature ______________

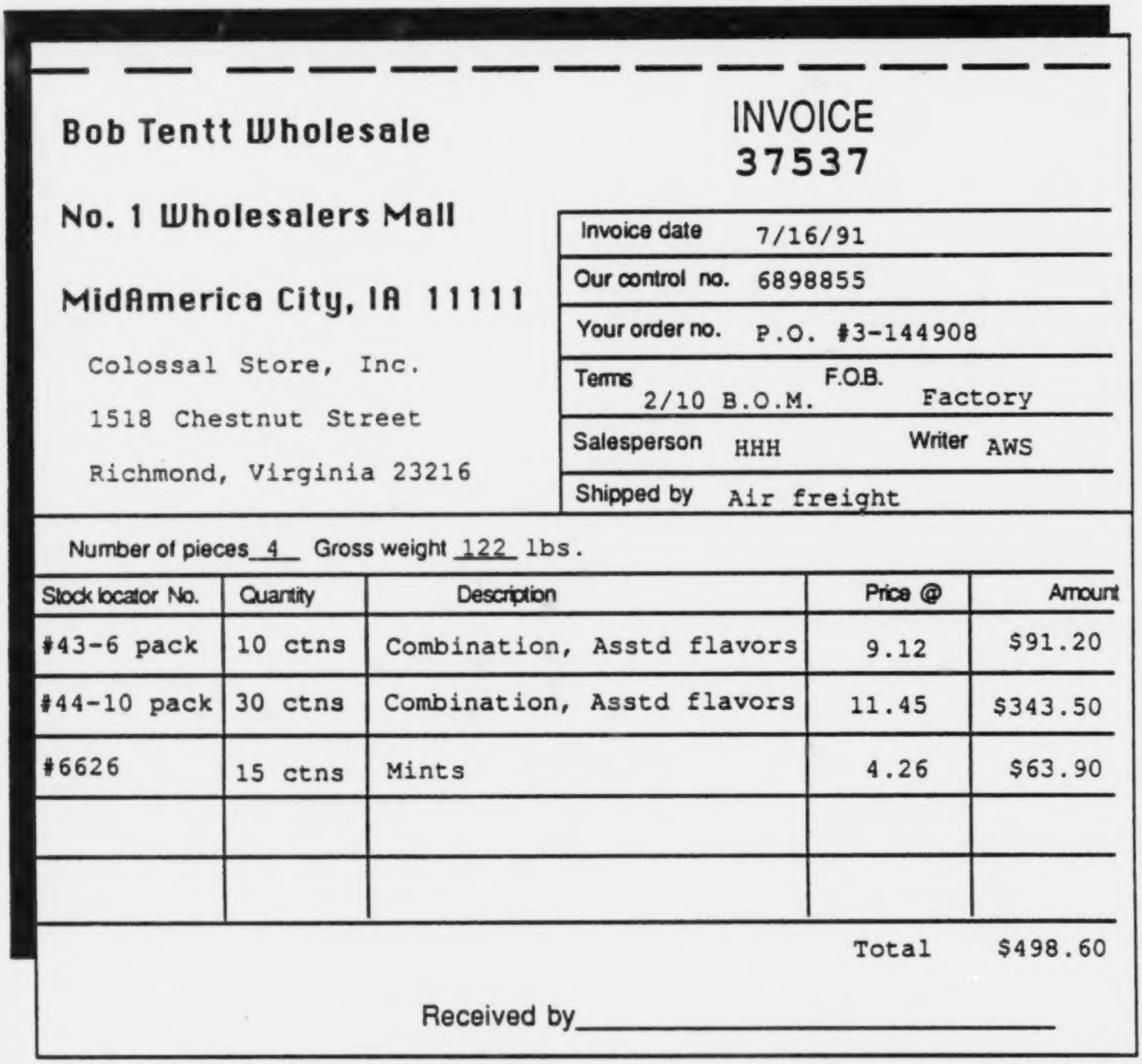
ME I: (b)(11)(B)

Name ______________________ Date ______________________

Independent Practice on Purchase Orders

Unit VIII: Assignment 25

1. Check the following invoice against the purchase order to ensure accuracy in billing. Circle any discrepancies on both forms. List each mistake below, and tell what the possible result of it is.



Bob Tentt Wholesale

No. 1 Wholesalers Mall

MidAmerica City, IA 11111

Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

INVOICE
37537

Invoice date 7/16/91

Our control no. 6898855

Your order no. P.O. #3-144908

Terms 2/10 B.O.M. F.O.B. Factory

Salesperson HHH Writer AWS

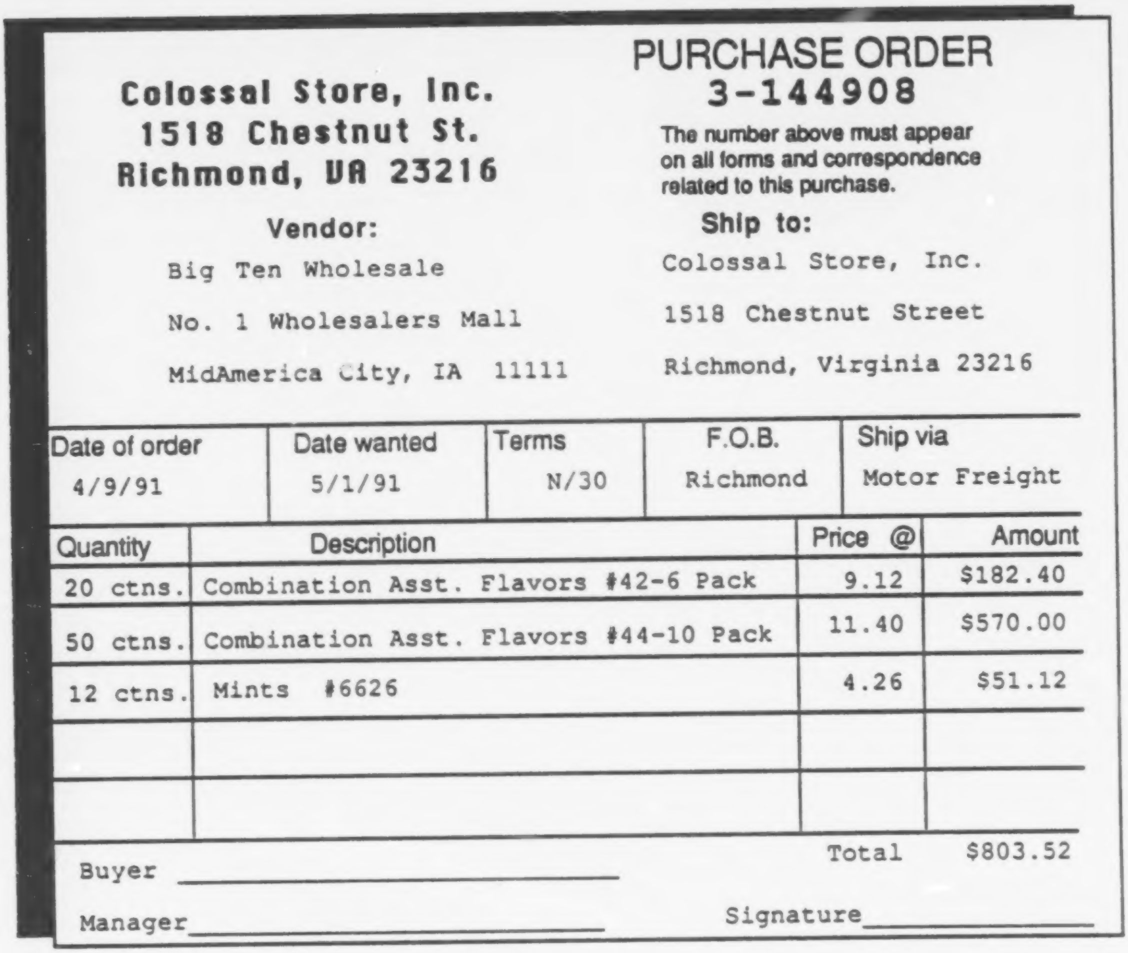
Shipped by Air freight

Number of pieces 4 Gross weight 122 lbs.

Stock locator No.	Quantity	Description	Price @	Amount
#43-6 pack	10 ctns	Combination, Asstd flavors	9.12	$91.20
#44-10 pack	30 ctns	Combination, Asstd flavors	11.45	$343.50
#6626	15 ctns	Mints	4.26	$63.90

Total $498.60

Received by ______________________



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216

PURCHASE ORDER
3-144908

The number above must appear on all forms and correspondence related to this purchase.

Vendor:

Big Ten Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:

Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms	F.O.B.	Ship via
4/9/91	5/1/91	N/30	Richmond	Motor Freight

Quantity	Description	Price @	Amount
20 ctns.	Combination Asst. Flavors #42-6 Pack	9.12	$182.40
50 ctns.	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns.	Mints #6626	4.26	$51.12
		Total	$803.52

Buyer ____________________

Manager____________________

Signature____________

2. Define *purchase order*.

3. List fifteen pieces of information that should be included on a purchase order.

ME I: (b)(9)(C)
ME II: (c)(3)(A)

Name ______________________________ Date ________________________________

Guided Practice on Pricing Structures

Unit VIII: Assignment 26

Each of the following items is listed with a fixed price. Compute extensions for each.

1. Sweaters are priced at $25.50 each. Joan buys a blue one, a red one, and a black one. How much does Joan owe? ____________________

2. The coach at Central is buying socks for the track team. He needs 25 pairs. The socks are $2.25/pair with a 15% discount to schools and churches. How much must he pay? ______________

3. The engagement ring that Tom and Sue wanted was not available in the retail store. Mrs. Longdon found exactly what they wanted in the Serpco catalog for $2,800.00, and she offered to order it for them. She promised delivery within two weeks. The ring was quadruple keystoned. How much did the store pay for the ring? ________________ What was the pricing used? _______________

ME I: (b)(9)(C)
ME II: (c)(3)(A)

Name ______________________________ Date ______________________________

Independent Practice on Pricing Structures

Unit VIII: Assignment 26

Find the terms that match the definitions below. The terms may be vertically, horizontally, or diagonally placed.

```
C L I S R I B A M K E P O H F S A M I X A B C X Z P R I N H D
L J Y V A R I A B L E P R I C I N G H P O I U Y T R E W Q A I
Z X C V B F M L K J K L P O I U Y T R E W Q P R I C A S D R E
F I X N O B I Q W E R T Y U I O P E L V A R I R B A S O I U Y
T E C A L K E X Q G H I G N M K E Y S T O N E D P R I C E S O
N H Y T G B V F E W S X Z A Q P L O K I B J U Y H N H T G B V
F R E D C D E W S D X Z A Q A S D F G A H J K L P O I U Y T R
E W Q M V B C V Z X P S A D S F D G S P O K I J U H Y G T F R
G D E S W A K E Y Z M R I B G V F E P L O K I J U H Y G T N B
V E N D I N G C D E A N I A D I P B O C A L I C A M J L F V Y
N F E D E R A L E X P R E C S R I C E B A S B H J U T E C M P
F I K E Y E N O T S E C R P I C E B A I R A V E S B L U B D Y
T S L X M C N D K F K F J C G N Q P W O W I E U E Y R T W L Z
P M Q M W X O S I B T K E C E D G I L L I O B L E S S O V E R
```

1. This means that the price follows changes in federal guidelines, the international market, or stock market activity. ____________________

2. This means that prices are the same for every customer, regardless of the quantity bought. ____________________

3. The price is marked up by a factor in a published form to help retailers price the product to the consumer and at the same time know what the product will cost them. ____________________

4. This means that a discount is given for quantity, time purchased, circumstances of the sale, and might even be negotiable between buyer and seller. ______________________________

Compute the prices for the following situations, and indicate the pricing structure involved by circling one of the choices provided.

5. Chairs are priced at $20.00 each. The discount price break is 10% at 100 and 20% at 500. Caty High School is buying 600 chairs. How much will the 600 chairs cost? ____________

a. fixed
b. variable
c. keystoned
d. base priced

6. A gold chain is priced $285.00 at $400.00 gold. Today gold is priced at $440.00. Will the chain's price remain the same, increase, or decrease? __________ What is the pricing used?

a. fixed
b. variable
c. keystoned
d. base priced

7. An artificial Christmas tree is priced at $65.00. The day after Christmas, Mrs. Konally was admiring the tree. The seasonal department manager mentioned that if she wanted the tree he could let her have it at 40% off. Mrs. Konally said she would take it if he would let her have it at 50% off. The manager agreed. How much did Mrs. Konally pay for the tree? ________ What was the pricing system?

a. fixed
b. variable
c. keystoned
d. base priced

8. Mr. Heggerd's jewelry store offers a line of diamond pendants that retail for $450.00-$2,100.00. Mr. Heggerd buys the pendants for $150.00-$700.00. What is the keystone? ______________

9. Senior rings were originally priced to Regin High School for $250.00, based on $400.00 gold. The price of gold jumped to $430.00. What would the rings cost with this increase? ____________________ What is the pricing structure?

a. fixed
b. variable
c. keystoned
d. base priced

10. The Blufftown Little League needs 40 baseball bats for the spring season. Chalston has bats for $15.00/ea. The coach found that he could order the bats from Frigley wholesalers for $11.00 each and decided to do so. How much were the bats? ________________________

ME I: (b)(11)(A)

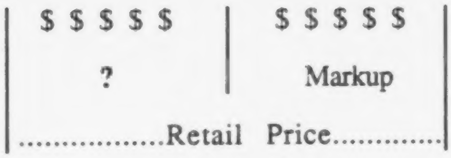
Name ______________________ Date ______________________

Guided Practice on Markup

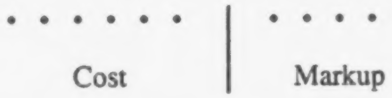
Unit IX: Assignment 27

1. The retail price (selling price) should always be considered ____________ %.

2. Given the following diagram, what is the unnamed portion of the retail price in ($) dollars called? ____________________



3. Given the following diagram, what percentage of the marks (•) are markup? ____________



4. Ms. Snow paid $5.00 for each canvas in her art store. She knew that her overhead, or operating expenses, ran approximately 28%, and she wanted to make about 12% net profit. What will she need to mark each canvas at retail? ____________________

5. The selling price of teakettles is $32.50. The markup is 42%. How much of the price is markup in dollars? __________ What percentage of the price is cost? ______________

Name ______________________ Date ______________________

Independent Practice on Markup

Unit IX: Assignment 27

1. Mr. Warren wants to make a $1.00 profit on each of the doll tables he sells. The tables cost him $10.00 each. His overhead is $2.50/table. What would the selling price be? __________ How much would his markup be for each table in dollars? _______ In percentage? _______

2. An item is sold for $30.00. The overhead expenses run $6.00 and the cost is $6.30. What is the net profit (in dollars) on this item? _________ What is the markup percentage? _______

3. If a tennis racket costs a merchant $32.00 and the markup is $8.00, what is the percentage markup based on retail? ________________ What is the percentage of cost based on retail? ____________________________

4. If an item sells for $27.00 and the markup is 44%, what is the amount of the markup? ________________ What is the cost of the item? ___________________________

5. If the cost of an item is $36.00 and that cost is 55%, what is the markup percentage of the item? ___________ What is the markup in dollars? ____________ What does the item retail for? _________

6. If the cost of an item is $50.00 and the markup is 41%, what is the retail price of that item? ______________

7. If the markup on an item is 35% and the cost is $15.00, what is the retail price? ____________

8. If the cost percentage of an item is 53% and the cost is $22.00, what is the retail price? __________________________

9. If the selling price of an item is $60.00 and the cost is $40.00, what is the percentage markup based on retail? ___________________

10. The selling price of item A is $20.00, and the markup is $10.00. The retail price of item B is $12.00, and the markup is $8.00. What is the markup percentage for item A?_____________
What is the markup percentage for item B?________________

ME I: (b)(11)(A)
ME II: (c)(3)(A)

Name ______________________ Date ______________________

Guided Practice on Margins and Profits

Unit IX: Assignment 28

1. On which basis (cost or retail) is margin usually figured? ______________

2. If a key chain costs $3.00, what would be the selling price if a 40% margin on selling price is desired? ______________

3. A golf bag is offered to a pro shop at the country club at a cost of $16.50. If the shop takes a 67% margin on cost, what will be the selling price of the golf bag? ______________

4. The Village Drug Store has a pricing policy that cost must always be 66% of selling price. What will be the selling price of a toothbrush that has a cost price of $0.47? ______________

Match the following terms to the correct definitions:

____ 5. selling price
____ 6. gross margin
____ 7. operating expenses
____ 8. net profit

a. marking an item to the nearest appointed selling price in a prescribed price line
b. the difference between selling price and cost of the merchandise
c. final price at which merchandise is to be sold
d. what is left after operating expenses are subtracted from gross margin business, other than cost of merchandise
e. all the expenditures that would be required to run a business, other than cost of merchandise

ME I: (b)(11)(A)
ME II: (c)(3)(A)

Name______________________________ Date________________________________

Independent Practice on Margins and Profits

Unit IX: Assignment 28

1. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $95.00 before it finally sold. What was the initial margin in dollars?__________ What was the initial margin in percent?____________ What was the margin in dollars and percent when the item was marked down to $95.00? $____________ and ________ %

2. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? ________________

3. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $25.50. If the shop takes a 67% margin on cost, what will be the selling price of the mitt?________________

4. The Bark and Purr Pet Shop has a pricing policy that cost must always be 65% of selling price. What will be the selling price of a dog collar that has a cost price of $0.98?______________

5. The new line of ice skates costs Mercer's $89.50 per pair. If Mercer's desires a 43% margin on the skates, what would the selling price be?______________

6. Cost + margin = ______________

7. Many people complain that the margin is too high on goods. Explain why a margin of 45% does not necessarily mean that the merchant is making $0.45 profit on every dollar's worth of goods sold.

ME I: (b)(11)(A)
ME II: (c)(3)(A)

Name ______________________ Date ______________________

Guided Practice on Break-Even Point

Unit IX: Assignment 29

1. Is the amount paid to purchase an item of merchandise a fixed cost or a variable cost? _______

2. Are the salaries paid to operate a department in a store fixed costs or variable costs? _________

3. A plant shop buys cactus plants at $6.80 per item. Retail price for the plants is set at $11.80 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

   How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? __________________

   How many plants will have to be sold to meet fixed expenses? __________________

4. Complete the graph shown using the following information, then interpret your results.

   Management expects to sell 150 units at $80.00 each, retail price.
   The fixed costs for the department are $4,000.00 for the month.
   The only variable cost is that for buying the merchandise, and it is 40% of retail price.

   First, do the calculations and answer these questions:

   (1) If 150 units are sold, what will the total revenue be? __________________

   (2) If 150 units are sold, what will the total variable costs be? _____________

   (3) If 150 units are sold, what would the total of all costs, fixed and variable, be? _______

   (4) How much is available from selling each unit for meeting fixed costs? ____________

5. Using your answers to those questions, complete the graph.

Draw the total revenue line from the 0 point at the left to the expected total revenue point at the right.

Draw the fixed costs line horizontally from left to right on the chart.

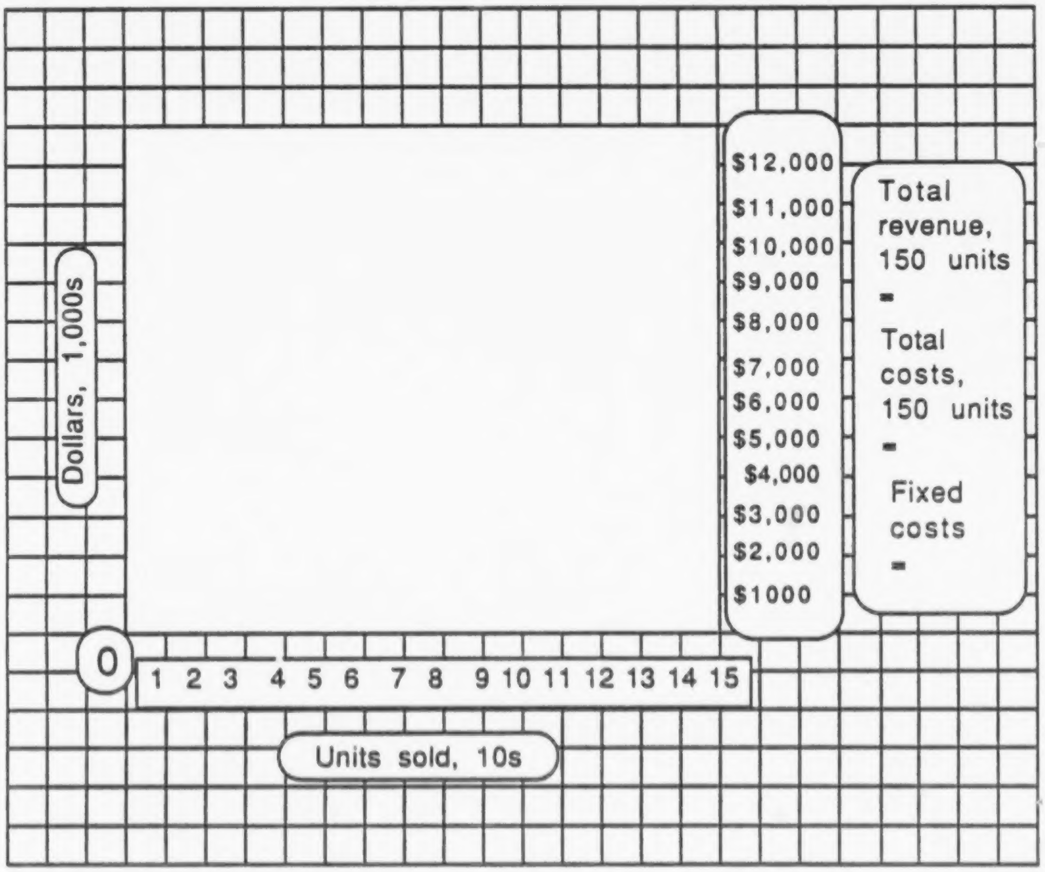
Draw a sloped line to represent total costs. It goes from the fixed costs line at the left to the calculated total costs point for 150 units at the right.

6. Interpret your chart to answer these questions. Then do the calculations to check your interpretation.

   A. Approximately how many units have to be sold to break even? __________
   Mathematically, what is the break-even point? __________

   B. What is the profit to be expected if all 150 units are sold? ______________

   C. What will the profit be if only 120 units are sold? ________________



ME I: (b)(11)(A)
ME II: (c)(3)(A)

Name ______________________________ Date ______________________________

Independent Practice on Break-Even Point

Unit IX: Assignment 29

1. A men's store buys socks at $3.00 per pair. Retail price for a pair of socks is set at $4.50. The socks are also expected to pay fixed expenses totaling $450.00.

   A. How much money is available from each pair to go towards meeting fixed expenses and profit? __________

   B. How many pairs will have to be sold to meet fixed expenses? __________

2. Complete the graph shown using the following information, then interpret your results.

   Management expects to sell 150 units at $80.00 each, retail price.
   The fixed costs for the department are $2,000.00 for the month.
   The only variable cost is that for buying the merchandise, and it is 50% of retail price.

   A. First, do the calculations and answer these questions:

   (1) If 150 units are sold, what will the total revenue be? ______________

   (2) If 150 units are sold, what will the total variable costs be? ______________

   (3) If 150 units are sold, what would the total of all costs, fixed and variable, be? __________

   (4) How much is available from selling each unit for meeting fixed costs? ______________

   B. Using your answers to those questions, complete the graph.

   Draw the total revenue line from the 0 point at the left to the expected total revenue point at the right.
   Draw the fixed costs line horizonally from left to right on the chart.

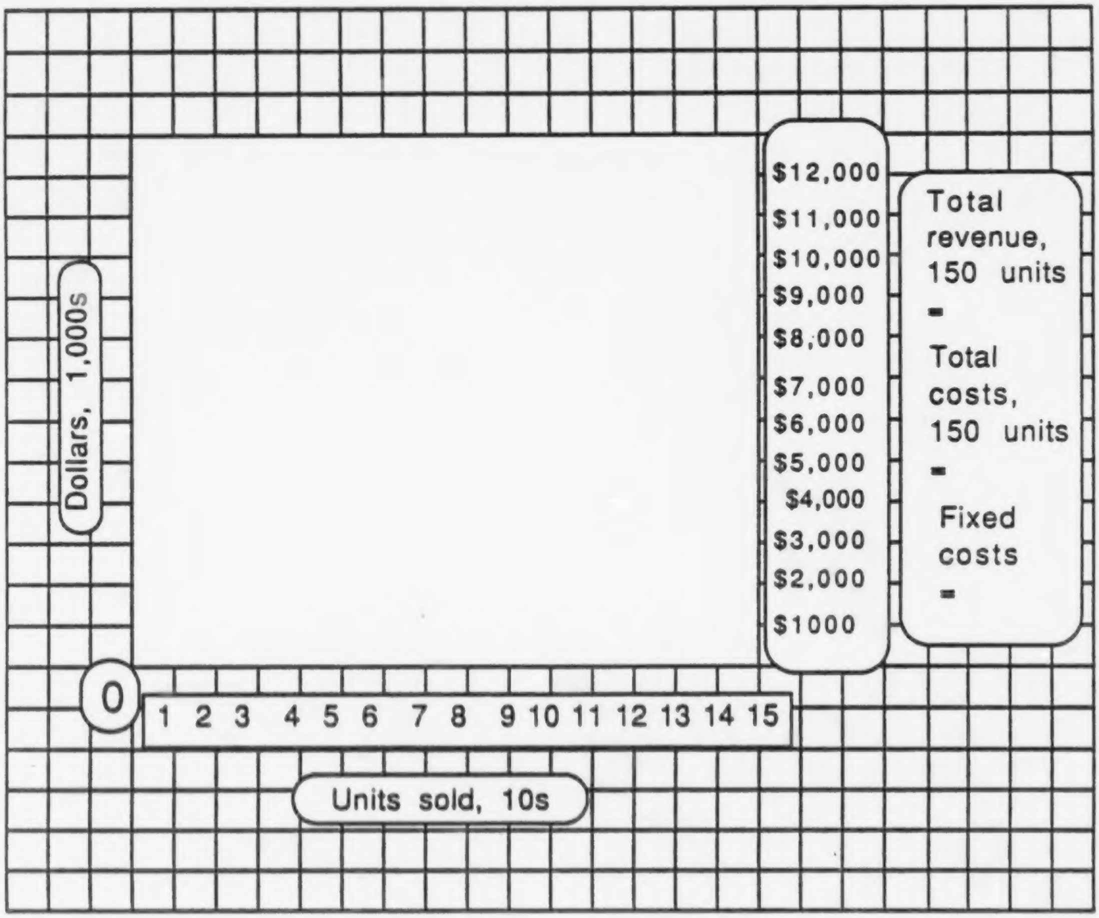
Draw a sloped line to represent total costs. It goes from the fixed costs line at the left to the calculated total costs point for 150 units at the right.

C. Interpret your chart to answer these questions. Then do the calculations to check your interpretation.

(1) Approximately how many units have to be sold to break even? _____ Mathematically, what is the break-even point? ________

(2) If all 150 units are sold, what will the profit be? _________

(3) If only 100 units are sold, what would the profit be? ______________



Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Name________________________________ Date________________________________

Guided Practice on Income Statement

Unit X: Assignment 30

Killian's sales for the first half of the year were $116,666.68. They were $233,333.32 for the second half of the year. They had allowed $1,200.00 in discounts for nonprofit organizations, and had received $6,800.00 in returned merchandise.

Killian's began the year with $102,000.00 in inventory, purchased an additional $150,000.00 worth of merchandise. During the year they returned $2,500.00 worth of merchandise to vendors and ended the year with $88,000.00 worth of merchandise in inventory.

Since Killian's has the benefit of a great deal of cooperative advertising, their advertising budget was a low $2,800.00, but their payroll amounted to $129,000.00 for the year. They paid a yearly rent rate of $16,000.00 and street service $40.00 per month to sweep the parking lot. Their utilities averaged $160.00 per month.

In addition to their sales revenue, Killian's received $40,550.00 for rental of other property and was able to negotiate the sale of $20,000.00 of their waste materials to a nearby pig farm.

On the form provided, complete Killian's income statement for year.

Killian's Supply
Income Statement
For the Year Ending December 31, 19__

Operating Income

1. Sales	$__________		
2. Less returns, discounts, allowances	$__________		
3. = Net sales		$__________	
4. Less cost of goods sold		$__________	
5. = GROSS MARGIN		$__________	

Operating Expenses

6. Employee compensations	$__________		
7. Rent	$__________		
8. Utilities	$__________		
9. Advertising expense	$__________		
10. Property upkeep	$__________		
11. = TOTAL OPERATING EXPENSE		– $__________	
12. NET OPERATING INCOME			$__________

Other Income

13. Property rental		$__________	
14. Waste materials sale		$__________	

15. = TOTAL OTHER INCOME $__________

16. NET INCOME $__________

Calculations and Sources of Information

Sales or gross sales comes from records

Gross sales – returns, allowances, discounts = **net sales**

(beginning inventory + purchases) – (ending inventory + returned merchandise and discounts) = **cost of goods sold**

Net sales – cost of goods sold = **gross margin**

Gross margin – total operating expenses = **net operating income**

Other income comes from records

Other income + net operating income = **net income**

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Name ______________________ Date ______________________

Independent Practice on Income Statement

Unit X: Assignment 30

Grayco's sales for the year were $325,000.00. They had allowed $1,000.00 in discounts for nonprofit organizations, and had received $2,005.00 in returned merchandise. Grayco began the year with $98,000.00 in inventory, purchased an additional $150,000.00 worth of merchandise. They ended the year with $98,000.00 worth of merchandise in inventory.

Grayco had an advertising budget of $2,800.00 local and $3,200.00 national. Their payroll amounted to $98,000.00 for the year. They paid a yearly property tax of of $3,300.00; and their utilities averaged $400.00 per month. Property upkeep was $8,000.00 for the year.

In addition to their sales revenue, Grayco received $5,000.00 per quarter for rental of other property and were able to negotiate the sale of $600.00 per month for their waste materials.

On the form provided, complete Grayco's income statement.

Grayco
Income Statement
For the Year Ending December 31, 19__

Operating Income

1. Sales $__________
2. Less returns, discounts, allowances $__________
3. = Net sales $__________
4. Less cost of goods sold $__________
5. = GROSS MARGIN $__________

Operating Expenses

6. Employee compensations $__________
7. Property tax $__________
8. Utilities $__________
9. Advertising expense $__________
10. Property upkeep $__________
11. = TOTAL OPERATING EXPENSE – $__________
12. NET OPERATING INCOME $__________

Other Income

13. Total rental income $__________
14. Sale of waste materials $__________
15. = TOTAL OTHER INCOME $__________
16. NET INCOME $__________

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Name________________________ Date________________________

Guided Practice on Balance Sheets

Unit X: Assignment 31

Assume that R. M. Markins has the following assets and liabilities and wishes to prepare a balance sheet in order to get a personal loan from a bank. As of February 28, Markins has $42.50 in cash and a checking account at the First National Bank with a balance of $369.50. He has lent money to J. C. Springer, who currently owes Markins a balance of $160.00.

In addition, Markins owes the Emporium Store $225.00 on an installment account, the Village Hardware Store $50.00 on a lawnmower, and Joe's Garage a bill for $37.50 for car repairs.

Markins can list all of his furniture, appliances, and other tangible assets as worth $1,800.00. He owes Ace Motors a balance of $160.00 on his car currently worth $895.00, and he has two life insurance policies with a cash surrender value of $800.00.

What would be R. M. Markin's net worth? ______________

R. M. Markins
Balance Sheet
as of
February 28, 19 __

ASSETS		LIABILITIES	
Cash on hand	$__________	Accounts payable:	
Account—1st Nat'l Bank	$__________	Emporium Store	$__________
Accounts receivable:		Village Hardware	$__________
J.C. Springer	$__________	Joe's Garage	$__________
Furniture, etc.	$__________	Ace Motors	$__________
Automobile	$__________		
		Total liabilities	$__________
Life insurance	$__________	Net worth	$__________
Total assets	$__________	Total liabilities and worth	$__________

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Name________________________________ Date__________________________________

Independent Practice on Balance Sheets

Unit X: Assignment 31

1. A small store has assets of $12,500.00 and liabilities of $5,600.00. What is the proprietorship of the business? _______________

2. A small newsstand has these assets: cash, $570.75; accounts receivable, $280.60; stock on hand, $1,620.00; and equipment and fixtures, $2,650.00. Its liabilities are accounts payable, $1,500.00; and note due to First State Bank, $500.00. What is the net worth of the newsstand? _______________

3. On December 31, Hicks Jewelers has on hand $4,500.19 in coins, bills, and undeposited checks; $18,030.25 on hand in balance of account at Merchant's Bank and Trust; and inventory of $156,120.00 (cost price). It has customer accounts due and unpaid (receivable) totaling $7,322.50. The jewelry store owns a building next door valued at $212,750.00 and has taxes due on the property in the amount of $3,837.65. Hicks Jewelers owes accounts of $5650.50. Prepare a balance sheet for Hicks Jewelers as of December 31. Show the total assets, liabilities, and owner's equity.

Hicks Jewelers
Balance Sheet
as of
December 31, 19 __

ASSETS		LIABILITIES	
Cash on hand	$______________	Accounts payable	$________
Merchant's Bank & Trust	$______________	Taxes due and unpaid	$________
Accounts receivable	$______________	Total liabilities	$________
Inventory on hand	$______________	Owner's equity	$________
Net value of property	$______________		
Total assets	$______________	Total liabilities and owner's equity	$________

4. Match the terms on the left to the statements on the right.

______1. asset
______2. balance sheet
______3. current assets
______4. equity
______5. fixed assets
______6. liabilities
______7. net worth
______8. proprietorship
______9. solvent

a. shows what the business owns, what it owes, and how much it is worth
b. term used to describe a company that has the ability to pay all of its debts
c. a synonym for owner's equity or proprietorship
d. can be converted into cash within a one-year business cycle
e. things the company owns that will be used for more than a year
f. the amount left over when liabilities have been subtracted from assets
g. the financial obligations that a company has to creditors
h. a synonym for owner's equity or net worth
i. anything a business owns that has value
j. all of the money spent by a business
k. being sued for injuries

Relates to
ME II: (c)(5)(C)(D)(E)(F)
on financial planning
and entrepreneurship

Name________________________________ Date_________________________________

Guided Practice on Preparing and Using Graphs and Charts

Unit X: Assignment 32

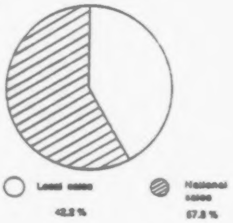
Match each of the following visualizations to the correct term, and mark the selection that describes it best:

______1. bar chart
  a. comparison
  b. trend
  c. relationship

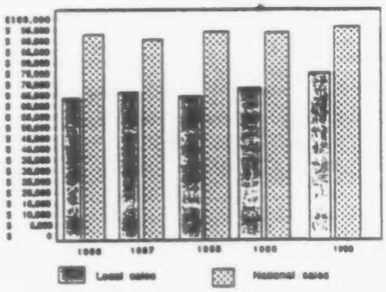
______2. graph
  a. comparison
  b. trend
  c. relationship

______3. pie chart
  a. comparison
  b. trend
  c. relationship

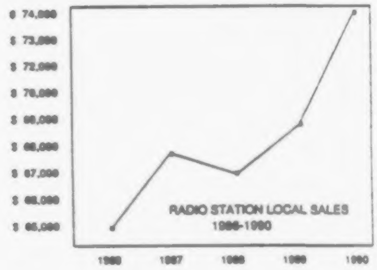
A.



B.



C.

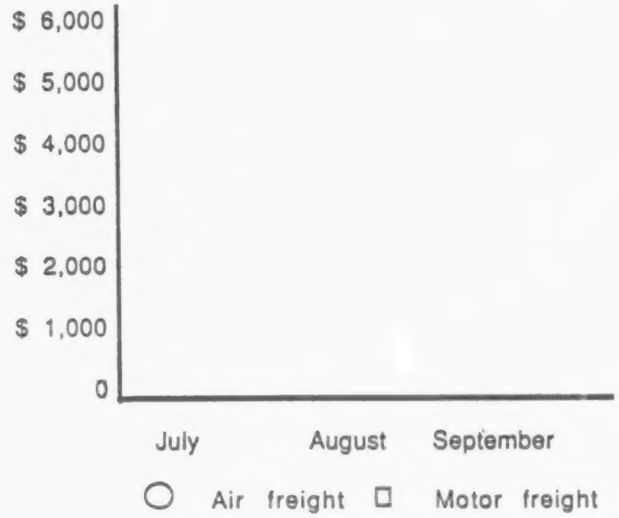


4. Explain why companies use visualization of data.

5. Using the following information, plot a graph showing the related costs of the two modes of shipment for the three months listed.

Interstate Mercantile ships by both air freight and motor freight.

	Air	Motor
July	$3,200	$4,600
August	2,900	3,400
September	3,300	5,100



6. Using the same information, draw a pie chart comparing the amount spent on air freight and the amount spent on motor freight. The total amount is 100%.

Relates to
ME II (c)(5)(C)(D)(E)(F)
on financial planning
and entrepreneurship

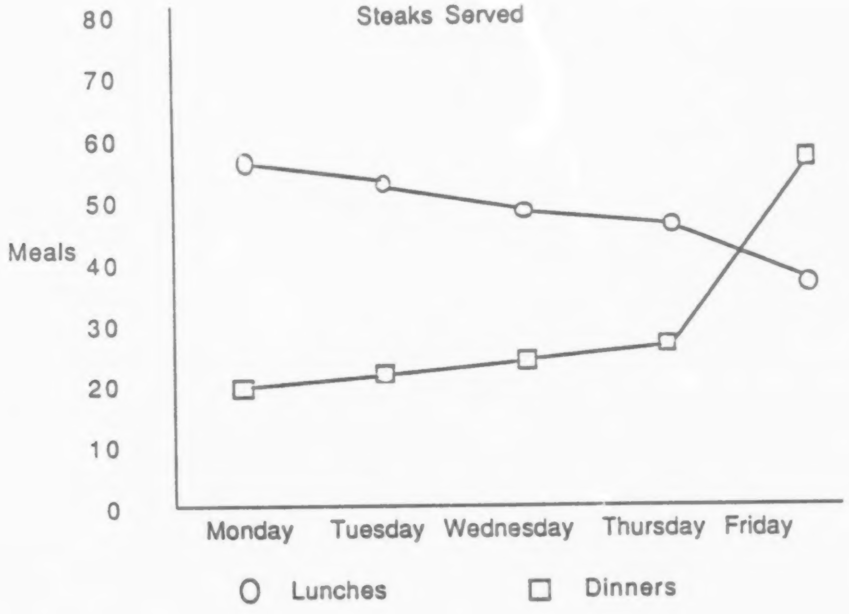
Name______________________________ Date______________________________

Independent Practice on Preparing and Using Charts and Graphs

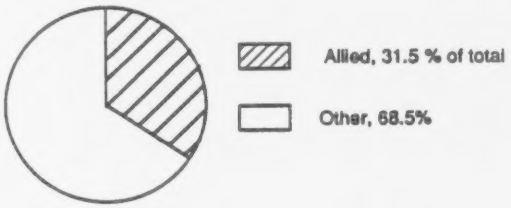
Unit X: Assignment 32

1. Explain the differences in charts and graphs.

2. Interpret the information on the following graph. State three facts that you know by looking at the graph.



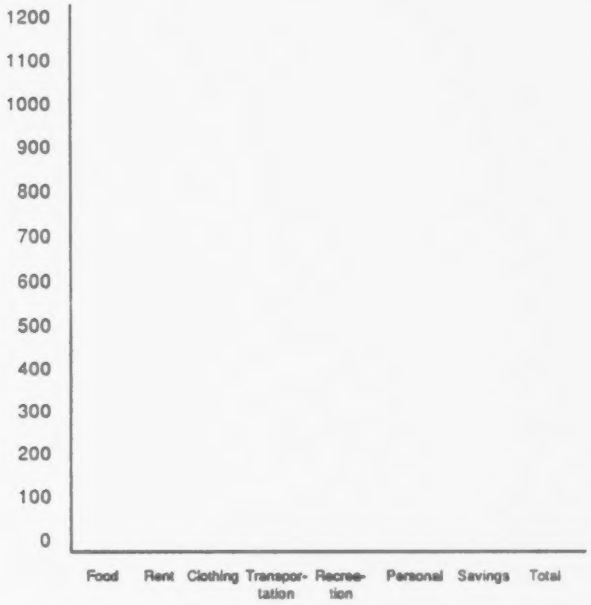
3. Goodall's buys merchandise from both Allied and Consolidated. Examine the following pie chart, and determine what percentage of Goodall's merchandise was bought from Allied during the month charted. ____________________



4. Using the personal budget outlined below, draw a bar chart comparing the amount spent on each item to the total amount spent for the month.

Mindy Whitaker—Personal Budget

Food	Rent	Clothing	Transportation	Recreation	Personal	Savings	Total Amount
$250	$300	$75	$265	$85	$65	$100	$1,140.00



Common essential elements
(a)(6)(D)(E)(F)

Name ______________________________ Date ______________________________

Guided Practice on Checking Accounts

Unit XI: Assignment 33

Match the following terms to the appropriate statements:

a. bank statement
b. outstanding checks
c. signature card
d. cancelled checks
e. checking account

____1. money deposited in the bank by one person and from which money is taken to pay the individual or organization named on the checks written by that person
____2. checks that have been deposited, have cleared the bank, and have been returned to you
____3. a record sent to you by the bank reporting your balance, the checks cleared, deposits, and amount of fees
____4. on file with the bank giving authority for payment from account

Match the following terms to the appropriate statements:

a. outstanding checks
b. joint account
c. passbook account
d. cancelled checks
e. individual account

____5. usually a savings account
____6. checks payable on the signature of one person and one person only
____7. checks that you have written, but that have not cleared the bank
____8. be careful to sign signature card with the word *or*

Match the following terms to the appropriate statements:

a. payor
b. payee
c. stop payment
d. endorsement
e. reconcile

____9. authorizes transfer of ownership of a check.
____10. what you should do when checks are lost or stolen, you should
____11. signature at the bottom of the check
____12. person to whom check is written

Match the following terms to the appropriate statements:

a. overdraw
b. negotiable
c. joint account
d. reconcile
e. cosignature account

_____13. requires two or more signatures on checks
_____14. to make checkbook balance and statement balance come out even
_____15. can be spent in exchange for something of value
_____16. to write checks for money you do not have in the bank

17. The FDIC insures money in an account up to $_________________.

18. List three acceptable IDs for check cashing purposes.

19. Discuss advantages and disadvantages of using a checking account.

20. List four precautions to observe when writing checks.

21. Discuss the six pieces of information that are needed to correctly write a check. List them in order of completion in the space below.

Common essential elements
(a)(6)(D)(E)(F)

Name ______________________________ Date ______________________________

Independent Practice on Checking Accounts

Unit XI: Assignment 33

For each of the following statements, indicate whether the statement is true (T) or false (F).

1. ______ The "funny looking" numbers at the bottom of the check are there for the bank and mean nothing to you.
2. ______ It is "OK" to date checks on holidays and Sundays.
3. ______ A joint account has two or more signatures on file at the bank. Any one of these signatures can be used on a check to authorize payment from the account.
4. ______ A postdated check is a check containing a date that has already passed.
5. ______ One should never sign a check until the payee's name and amount is completed.
6. ______ All banks have the same services available.
7. ______ You must be very careful to sign each check exactly as your signature appears on the signature card.
8. ______ Most banks will always honor your checks and will call or write to let you know that you need to deposit more money to cover them.
9. ______ A check remains good for up to 30 months after being written.
10. ______ If your name is spelled incorrectly on the front of the check, you should endorse it with the spelling that appears on the front, then the correct spelling beneath that.

Multiple choice: Choose the best answer by circling the letter to the left of that answer.

11. Which of the following is the least desirable endorsement to use on a check?
    - a. a blank endorsement
    - b. a restrictive endorsement
    - c. a transfer endorsement
    - d. a corrective endorsement

12. Reasons for stopping payment on a check include all of the following except
    - a. discovery of fraud
    - b. checks are lost or stolen
    - c. you get mad at the payee
    - d. payee does not fulfill agreement of payment

13. If you make a mistake when writing a check, you should
    - a. tear the check up
    - b. show on your register or stub that the check has been voided
    - c. start over with a new check
    - d. all of the above are correct

14. When writing a check, the last thing the payor should do is
    - a. write name of payee
    - b. indicate what the check is payment for
    - c. sign his or her signature
    - d. write in the amount of the check

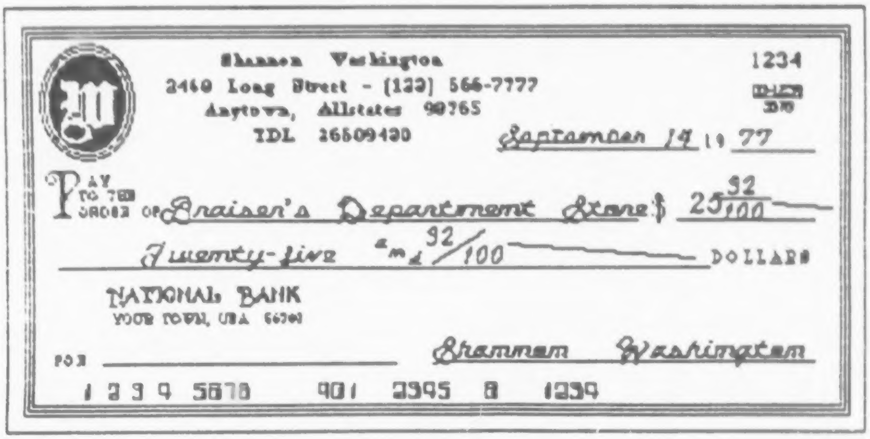
15. "For deposit only" is an example of a
    a. blank endorsement
    b. restrictive endorsement
    c. corrective endorsement
    d. transfer endorsement

16. All monies deposited in a checking account should be recorded on the
    a. check register
    b. passbook
    c. signature card
    d. none of the above are correct

17. Information that is preprinted on the front of your checks when you receive them includes all but which of the following?
    a. check number
    b. name of your bank
    c. town in which the payee lives
    d. number of days it normally takes the check to clear your bank

18. On the deposit slip, checks being deposited are
    a. listed as currency
    b. added together and entered under "checks"
    c. deposited in a different deposit from other monies
    d. each listed separately

19. Examine the check, written on September 4th, shown below. In which ways is it incorrectly written?



Shannon Washington
2460 Long Street - (123) 566-7777
Anytown, Allstates 98765
TDL 26509420

1234

September 14 19 77

PAY TO THE ORDER OF Braiser's Department Store $ 25 32/100

Twenty-five and 32/100 DOLLARS

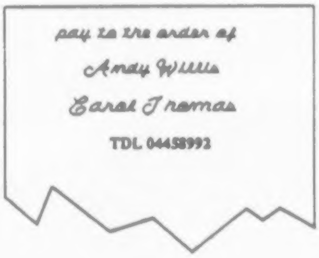
NATIONAL BANK
YOUR TOWN, USA 66700

FOR

Shannon Washington

1 2 3 4 5678 901 2345 8 1234

20. Identify the type of endorsement shown. ____________



pay to the order of
Andy Willis
Carol Thomas
TDL 04458993

Common essential elements (a)(6)(E)(F)

Name ______________________________ Date ______________________________

Guided Practice on Loan Applications

Unit XI: Assignment 34

1. Explain why commercial finance company interest rates are usually higher than those of other lending institutions.

2. Explain why credit union interest rates are usually lower than those of other lending institutions.

3. Give examples of three kinds of collateral that might be used to secure a loan.

4. You are considering signing a $6,000.00 car loan with a stated interest of 10% per year, borrowed for three years. The dollar value of the interest paid for the loan is $1,800.00.

   What would be the simple interest rate if the loan is repaid with one payment at the end of three years? ______________

   What would be the effective interest rate if it is repaid in equal monthly payments for three years? ______________

5. A loan agreement for a camcorder states that the total interest paid for a $1,105.00 loan, to be paid off in 18 equal installments, will be $140.00. What will the effective interest rate be?

   ____

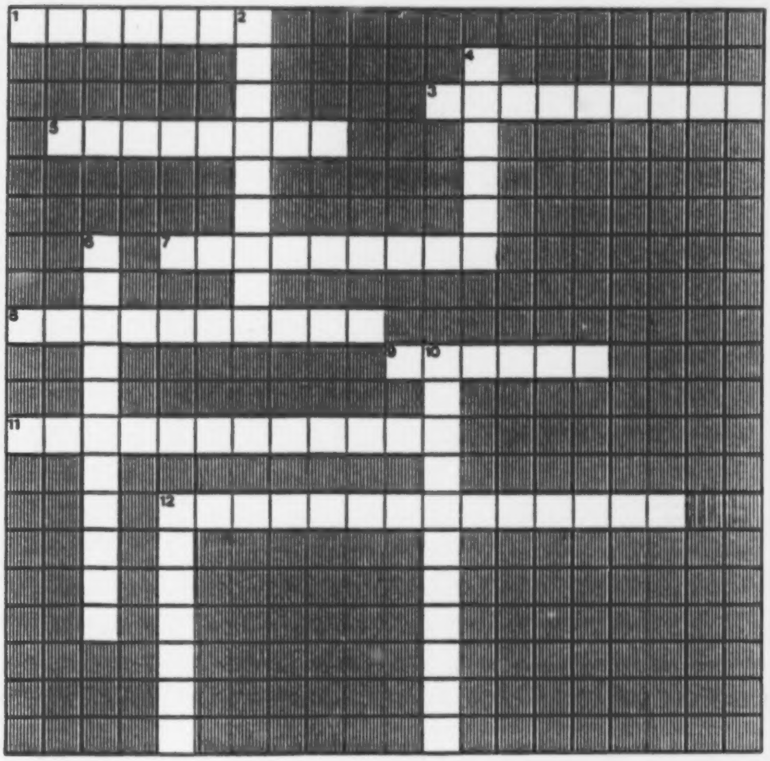
Common essential elements (a)(6)(E)(F)

Name ______________________________ Date ______________________________

Independent Practice on Loan Applications

Unit XI: Assignment 34

1.



ACROSS

1. specialize in high-risk loans at high interest rates
3. loans made on the reputation and good name of the borrower
5. the amount of money repaid—above and beyond the amount of money borrowed
7. the actual amount of money borrowed
8. an item of value that backs up a loan—bank may claim item if loan is not repaid
9. money paid back in lump sum—with interest on that sum
11. financial institution owned by its customers
12. financial institution that specializes in real estate and mortgages

DOWN

2. measures the actual money the borrower has to use during the term of the loan
4. the _______ percentage rate, or APR
6. offers a variety of banking services; sometimes called a commercial bank
10. ___________ require that the borrower pay both principal and interest at same time in periodic payment
12. __________ loans backed by an item of value that the bank can claim if the loan is not repaid

2. Compute the simple interest in dollars to be paid on a $12,000.00 car loan with a stated interest of 9%, borrowed for five years and repaid at the end of the five years. ________

   Compute the effective loan interest for the same total and interest in dollars if the loan is to be repaid in equal monthly installments over five years. __________

3. You are looking at a loan agreement that says the interest in dollars is $120.00 for a loan of $1,200.00, to be repaid in one payment at the end of the one-year period for which it is borrowed. What is the interest rate you will be paying? ______________

   What would the effective rate be if you pay for the loan in equal monthly installments over the year? ________________

Answer Key for

- Pretests
- Posttests
- Checking for Understanding Exercises
- Guided Practices
- Independent Practices

Pretest for Unit I: Arithmetic Fundamentals

Assignments 1, 2, and 3

1. Arrange these numbers in a column then add them: $22.50, $13.00, $12.66, and $19.44.

$$\begin{array}{r} \$22.50 \\ 13.00 \\ 12.66 \\ \underline{19.44} \\ \$67.60 \end{array}$$

Add the following columns of numbers:

$$2.\quad \begin{array}{r} 66 \\ 18 \\ 66 \\ \underline{12} \\ 162 \end{array} \qquad 3.\quad \begin{array}{r} 39 \\ 19 \\ 12 \\ \underline{44} \\ 114 \end{array}$$

Subtract the following columns:

$$4.\quad \begin{array}{r} 22.00 \\ \underline{-\ 18.33} \\ 3.67 \end{array} \qquad 5.\quad \begin{array}{r} 99.12 \\ \underline{-\ 16.33} \\ 82.79 \end{array}$$

Add the following fractions:

$$6.\quad \begin{array}{r} 6\ 3/4 \\ \underline{+\ 4\ 1/2} \\ 11\ 1/4 \end{array} \qquad 7.\quad \begin{array}{r} 8\ 9/10 \\ \underline{+\ 6\ 8/10} \\ 15\ 7/10 \end{array}$$

Subtract the following fractions:

$$8.\quad \begin{array}{r} 9\ 3/4 \\ \underline{-\ 8\ 1/4} \\ 1\ 2/4 \end{array} \qquad 9.\quad \begin{array}{r} 12\ 2/3 \\ \underline{-\ 11\ 1/3} \\ 1\ 1/3 \end{array}$$

Give the decimal and fraction equivalents for these percents:

10. 50 percent = 0.50 = 1/2
11. 100 percent = 1.00 = 1/1

Do the following problems. Answers should have no more than two digits after the decimal. Round up anything over two digits. 1.331 would become 1.34.

12. 654 × 34 = 22,236
13. 782 × 25 = 19,550
14. 12 × 13 = 156
15. 10.4 ÷ 26 = 0.4
16. 549 ÷ 1.8 = 305

17. 32 ÷ 2.2 = 14.55

18. The decimal equivalent of 3/8 is 0.38

Change the following weights and measurements as indicated, and show your work.

19. 360 in. to ft = 30 ft

20. 176 pt to qt = 88 qt

21. 288 qt to gal = 72 gal

22. What would you tell a customer who wants to know how many pints are in a 2-liter bottle? 4.2 pt

23. If you buy 2 kilograms of butter, how much butter are you buying in pounds? 4.4 lb

24. About how many bushels do you get if you buy 18 liters of produce? about 1/2 bushel

Without consulting the table of U.S. weights and measures, make the following conversions:

24. 52 gal to qt 208 qt

25. Convert 24 lb, 12 oz to oz 396 oz

Posttest for Unit I: Arithmetic Fundamentals

Chapters 1, 2, and 3

1. Arrange these numbers in a column, then add them: $38.50, $12.60, $15.40, and $18.76.

$$\begin{array}{r} \$38.50 \\ 12.60 \\ 15.40 \\ \underline{18.76} \\ \$85.26 \end{array}$$

Add the following columns of numbers:

2. $\begin{array}{r} 66 \\ 22 \\ 12 \\ \underline{20} \\ 120 \end{array}$

3. $\begin{array}{r} 50 \\ 12 \\ 22 \\ \underline{50} \\ 134 \end{array}$

Subtract the following columns:

4. $\begin{array}{r} 22.00 \\ \underline{-20.33} \\ 1.67 \end{array}$

5. $\begin{array}{r} 199.12 \\ \underline{-114.33} \\ 84.79 \end{array}$

Add the following fractions:

6. $\begin{array}{r} 9\ 2/4 \\ \underline{+6\ 1/4} \\ 15\ 3/4 \end{array}$

7. $\begin{array}{r} 9\ 6/10 \\ \underline{+6\ 8/10} \\ 16\ 4/10 \end{array}$

Subtract the following fractions:

8. $\begin{array}{r} 9\ 3/4 \\ \underline{-7\ 1/4} \\ 2\ 2/4 \end{array}$

9. $\begin{array}{r} 12\ 2/3 \\ \underline{-10\ 1/3} \\ 2\ 1/3 \end{array}$

Give the decimal and fraction equivalents for these percents:

10. 25 percent = 0.25 = 1/4
11. 80 percent = 0.80 = 4/5

Do the following problems. For answers that are in dollars and cents, round the result up to the nearest penny. For example, $2.4444 in an answer would become $2.45.

12. 32 × 40 = 1,280
13. 112 × 20.56 = 2302.72
14. 624 ÷ 30 = 20.8
15. $1,006.00 ÷ $16.50 = $60.97
16. Find the cost of 232 pounds of tomatoes at 62 1/2 cents per pound. $145.00

232 × 0.625 = $145.00

17. How many inches in 3 feet? _36 in._

18. How many pecks of apples in 100 bushels? _40 pecks_

19. A buyer bought the following shirts: 8 dozen white, 4 dozen blue, and 24 dozen tan. How many gross were purchased? _3 gross_

36 × 12 = 432   432 ÷ 144 = 3 gross

20. How many pounds does 4 kilograms equal? _8.8 lb_

Pretest for Unit II: Application ofArithmetic Fundamentals

Assignments 4, 5, and 6

1. Find the interest on $150.00 for 50 days at 12%. Answer $2.50

$$\frac{\overset{15}{\$\cancel{150}} \times 0.12 \times \overset{25}{\cancel{50}}}{\begin{array}{c}\cancel{360}\\ \cancel{36}\\ 18\end{array}} = \$2.50$$

2. Find the interest on $2,250.00 for 30 days at 12%. Answer $22.50

$$\frac{\overset{1125}{\$\cancel{2250}} \times 0.12 \times \overset{1}{\cancel{30}}}{\begin{array}{c}\cancel{360}\\ \cancel{180}\\ 6\end{array}} = \$22.50$$

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

3. Marguerite earned $450.00 in two weeks. She put $150.00 in her savings account for college. What percent of her earnings did she save? Answer Rate, 0.33 or 33%

$150/450 = 0.33

4. A buyer had to reduce inventory by 38%. If the merchandise was valued at $11,520,000, how much of a reduction was taken? Answer Percentage, $4,377,600

$11,520,000 × 0.38 = $4,377,600

5. Michelle has been shopping for a new set of golf clubs. She has saved $320.00. This is 80% of the retail price of the set. What is the retail price of the clubs? Answer Base, $400.00

$320/0.80 = $400

6. Extend the sales slip below and add these items to get a merchandise total (MDSE TOTAL): 5 pairs of socks at $4.50 each, 1 tie tack at $19.50, and 6 undershirts at $9.00 each.

CASH ☐		CHARGE ☐	☐ CONTRACT	
DEPT.	QTY.	ITEM	PRICE	AMT.
16	5	Socks #32	4.50	22.50
	1	tie tack #390	19.50	19.50
	6	undershirts #311	9.00	54.00
		MDSE. TOTAL		$96.00

Posttest for Unit II: Application of Arithmetic Fundamentals

Assignments 4, 5, and 6

1. Find the interest on $3,000.00 for 120 days at 18%. Answer $180.00

$$\frac{\$3000 \times 0.18 \times \overset{1}{\cancel{120}}}{\underset{3}{\cancel{360}}} = \$180$$

2. Find the interest on $1,700.00 for 60 days at 12%. Answer $34.00

$$\frac{\overset{850}{\cancel{\$1700}} \times 0.12 \times \overset{1}{\cancel{60}}}{\underset{\underset{3}{\cancel{180}}}{\cancel{360}}} = \$34$$

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

3. The payment on Juanita's new pickup is $260.00 per month. With gasoline and other related expenses, she spent a total of $360.00 on the car in January. What percent of her car expenses went for the car payment in January? Answer Rate, 0.722 or 73%

$$\frac{\$260}{360} = 0.722 \text{ or } 73\%$$

4. Mary made a good deal on a CD player, reporting that she paid $125.00, which was only 70% of the original price. What was the original price? Answer Base, $178.57

$$\frac{\$125}{0.70} = \$178.57$$

5. John's Other Store spent 18% of its gross income of $90,000.00 each quarter on advertising. How much did it spend on advertrising? Answer Percentage, $16,200.00

$0.18 \times \$90,000 = \$16,200$

6. Complete the price change form below by extending the items for which prices are being marked down. Note that what is extended is the unit difference for each item. They include 10 shirts being marked down from $25.00 to $17.00, and 15 shirts being marked down from $20.00 to $12.00.

PRICE CHANGE FORM

Date______________199__ Number____________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
10 shirts #341	7	25	00	17	00	8	00	10	80	00
15 shirts #343	7	20	00	12	00	8	00	15	120	00
								Total	200	00

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ____________________

Form ST-13

Pretest for Unit III: Cashiering

Assignments 7, 8, 9, and 10

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $10.00 for a purchase of $4.25. Assume that you do have half dollars. Also write what you would say to the customer if manual calculation is required.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
			1	1		1		

"You gave me a $10.00 bill. That's $4.25 out of $10.00, $4.50, $5.00, and $5.00 is $10.00."

2. The following represents the contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $210.00.

Pennies	*125*	= 125 × .01 =	1.25	in pennies
Nickels	*100*	= 100 × .05 =	5.00	in nickels
Dimes	*25*	= 25 × .10 =	2.50	in dimes
Quarters	*30*	= 30 × .25 =	7.50	in quarters
Halves	*5*	= 5 × .50 =	2.50	in halves
$1s	*25*	= 25 × 1.00 =	25.00	in ones
$5s	*15*	= 15 × 5.00 =	75.00	in fives
$10s	*5*	= 5 × 10.00 =	50.00	in tens
$20s	*2*	= 2 × 20.00 =	40.00	in twenties
		Total =	208.75	

Check one and tell the amount.

Are you over ______ by ______?
short ✓ by 1.25?
balanced ______ at ______?

3. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer _$5.17_

$64.55 × 0.08 = $5.164

4. Record this sale which was made to Bill E. Boyd at This Is the Store. The sale is for cash, and the department is #16. Sales tax will be 8%, or 0.08.

1 knit shirt, #36333, $14.88
1 dress shirt, #49900, $22.50
6 pairs hose, #66264, $5.50 each

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
16	1	Knit shirt #36333	14.88	14.88
	1	dress shirt #49900	22.50	22.50
	6	pair hose #66264	5.50	33.00
		MDSE TOTAL		70.38
		SALES TAX		5.63
		TOTAL		76.01

5. Alice Bluegown charges a $109.00 mechanic's tool set to her account at Speedy's, then two days later comes back and exchanges it for one costing $159.00. What would be the difference in total prices between what she paid for the first set and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

Difference in total prices for sales is $54.00

$159 × 0.08 = $12.72 for sales tax, and total price is $171.72.
$109 × 0.08 = $8.72 for sales tax, and total price is $117.72.
$54.00 difference in totals

Her account would be credited with $117.72 for the first sale, and the total of $171.72 for the second purchase would be charged.

6. Using this information, do the calculations needed for a retail installment contract. A personal computer is being purchased for $1800.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $300.00. There is no trade-in.

1.	(A) cash price	$1800.00
	(B) any accessories or services not (A)	
2.	Sales tax	$144.00
3.	Total cash price	$1944.00
4.	Down payment	$300.00
5.	Item 3 – Item 4	$1644.00
6.	Amount financed	$1644.00
7.	Finance charge at 18%	$295.92
8.	Deferred payment price (3 + 7)	$2239.92
9.	Total of payments (6 + 7)	$1939.92

7. Laura Smithson wants to buy a bracelet that costs other customers $165.00. She is entitled to a 25% employee's discount. What would she pay, exclusive of sales tax? $123.75

$165.00 × 0.25 = $41.25 discount. $165.00 – $41.25 = $123.75

Posttest for Unit III: Cashiering

Assignments 7, 8, 9, and 10

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $100.00 for a purchase of $77.95. You are out of half dollars. In this case, the cash register has shown the change should be $22.05.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
	1				2			1

"You gave me a $100.00 bill. Your change is $22.05. Five cents. $22.00. $22.05. Thank you."

2. The following represents the contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $190.00.

Pennies	*75*	= 75 × .01 =	.75	in pennies
Nickels	*200*	= 200 × .05 =	10.00	in nickels
Dimes	*40*	= 40 × .10 =	4.00	in dimes
Quarters	*20*	= 20 × .25 =	5.00	in quarters
Halves	*6*	= 6 × .50 =	3.00	in halves
$1s	*25*	= 25 × 1.00 =	25.00	in ones
$5s	*3*	= 3 × 5.00 =	15.00	in fives
$10s	*5*	= 5 × 10.00 =	50.00	in tens
$20s	*4*	= 4 × 20.00 =	80.00	in twenties
		Total =	$192.75	

Check one and tell the amount.

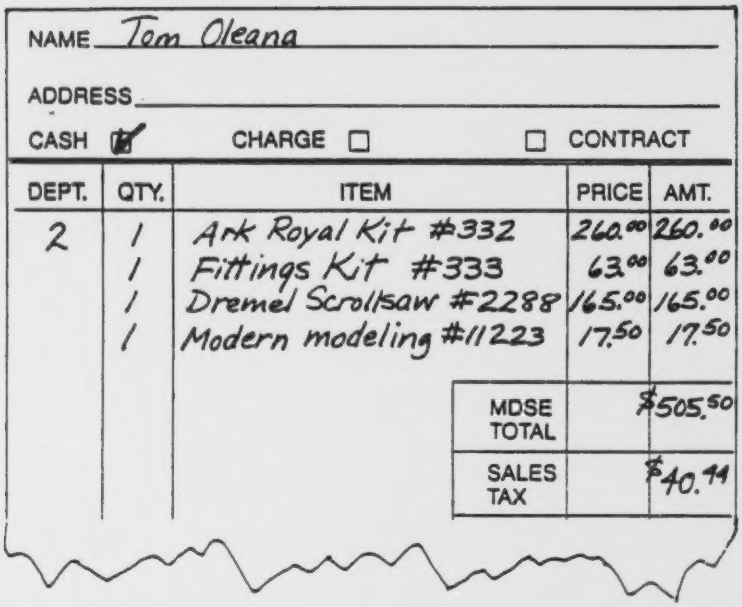
Are you over ✓ by $2.75?
short ______ by ______?
balanced ______ at ______?

3. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer $5.17

$64.55 × 0.08 = $5.164

4. Record this sale which was made to Tom Oleana at Ship Modelers' Heaven. It is for cash, and the department is #2. Sales tax will be 8%, or 0.08.

1 Ark Royal Kit, #332, $260.00
1 Fittings kit, #333, $63.00
1 Dremel scroll saw, #2288, $165.00
1 Modern Modeling Bk, #11223, $17.50



NAME Tom Oleana

ADDRESS

CASH ☑ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
2	1	Ark Royal Kit #332	260.00	260.00
	1	Fittings Kit #333	63.00	63.00
	1	Dremel Scrollsaw #2288	165.00	165.00
	1	Modern modeling #11223	17.50	17.50
		MDSE TOTAL		$505.50
		SALES TAX		$40.44

5. C.D. Fan charges a $149.00 CD player to her account at Musicando, then two days later comes back and exchanges it for one costing $269.00. What would be the difference in total prices between what she paid for the first stereo component and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

   Difference in total prices for sales is $129.60

$269 × 0.08 = $21.52 sales tax, and total price is	$290.52
$149 × 0.08 = $11.92 sales tax, and total price is	$160.92
	$129.60 difference in totals

   Her account would be credited with $160.92 for the first sale, and the total of $290.52 for the second purchase would be charged.

6. Using this information, do the calculations needed for a retail installment contract. A personal computer is being purchased for $2,100.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $200.00. There is no trade-in.

1. (A) cash price	$2100.00
(B) any accessories or services not in (A)	
2. Sales tax	$168.00
3. Total cash price	$2268.00
4. Down payment	200.00
6. Amount financed	$2068.00
7. Finance charge at 18%	$372.24
8. Deferred payment price (3 + 7)	$2640.24
9. Total of payments (6 + 7)	$2440.24

7. Monica Thompson is entitled to a 15% employee's discount. What would she pay for an item that costs other people $26.99? Do not include sales tax. $22.94

   $26.99 × 0.15 = $4.05 discount. $26.99 – $4.05 = $22.94

Pretest for Unit IV: Inventory Procedures

Assignments 11, 12, and 13

1. What is a packing slip, and how is it different from an invoice?

   A packing slip is the document that arrives with the merchandise and lists what should be delivered. It differs from an invoice in that the columns for unit price and $ amounts have been blacked out.

2. List the information that might be contained on an invoice.

   Information includes date, vendor's control number, purchase order number, terms, name of carrier, to whom shipped, stock locator numbers, quantities, descriptions, prices per unit, and $ amounts resulting from extensions. Also possible are number of cartons shipped, weight, discounts available, and due dates.

3. What is an apron, and why is it important to a buyer?

   An apron is a document to which invoices are attached and on which is recorded additional information that is needed by the store.

4. What kind of information is usually included on a price tag?

   Price tag information includes date received, actual cost of merchandise, source, retail price, descriptors, department codes, and stock numbers.

5. What are the principles of marking merchandise?

   (1) The price mark should be distinguishable.
   (2) Marking should be sufficiently permanent, yet readily removable.
   (3) Marking should not be injurious.
   (4) Price should be readily available to sales clerk and customer.
   (5) Marking should be neat, legible, not unattractive.
   (6) Marking should allow for easy price revision.
   (7) Marking in one department should involve as few standard methods as possible.
   (8) Method of marking should be fast and inexpensive in terms of labor and supplies.

6. What is the purpose of the receiving record?

   The receiving record provides a place for the checker to indicate what is actually received.

7. What is the dollar amount change on a $60.00 item that is to be marked down 20%? $12.00 What is the new price? $48.00

   $60 × 0.20 = $12. $60.00 – $12.00 = $48.00

8. If an item is reduced from $100.00 to $60.00, what is the percentage of reduction? 40%

   $40/$100 = 0.40, or 40%

9. What is the dollar amount change on a $200.00 item that is marked down 40%? $80.00
What is the new price? $120.00

$200.00 × 0.40 = $80.00. $200.00 – $80.00 = $120.00

10. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

Book inventory is done just by keeping records, while physical inventory requires an actual count. Physical inventory is required because book inventory may be inaccurate.

11. List some of the facts a physical inventory gives to management.

- Actual number of items on hand by description, stock number, and department
- Actual dollar cost invested in inventory (and retail value) at the time inventory is taken
- Condition of items inventoried
- If there is old stock that should be rotated so that it is sold first
- Exact amount of shrinkage and where it occurs most often

Posttest for Unit IV: Inventory Procedures

Assignments 11, 12, and 13

1. What is a packing slip, and how is it different from an invoice?

   A packing slip is the document that arrives with the merchandise and lists what should be delivered. It differs from an invoice in that the columns for unit price and $ amounts have been blacked out.

2. List the information that might be contained on an invoice.

   Information includes date, vendor's control number, purchase order number, terms, name of carrier, to whom shipped, stock locator numbers, quantities, descriptions, prices per unit, and $ amounts resulting from extensions. Also possible are number of cartons shipped, weight, discounts available, and due dates.

3. What is an apron, and why is it important to a buyer?

   An apron is a document to which invoices are attached and on which is recorded additional information that is needed by the store.

4. What kind of information is usually included on a price tag?

   Price tag information includes date received, actual cost of merchandise, source, retail price, descriptors, department codes, and stock numbers.

5. What are the principles of marking merchandise?

   - The price mark should be distinguishable.
   - Marking should be sufficiently permanent, yet readily removable.
   - Marking should not be injurious.
   - Price should be readily available to salesclerk and customer.
   - Marking should be neat, legible, not unattractive.
   - Marking should allow ease of price revision.
   - Marking in one department should involve as few standard methods as possible.
   - Method of marking should be fast and inexpensive in terms of labor and supplies.

6. What is the purpose of the receiving record?

   The receiving record provides a place for the checker to indicate what is actually received.

7. What is the dollar amount change on an $80.00 item that is to be marked down 30%? _$24.00_ What is the new price? _$56.00_

   $80 × 0.30 = $24.00. $80.00 – $24.00 = $56.00

8. If an item is reduced from $80.00 to $60.00, what is the percentage of reduction? _25%_

   $20/$80 = 0.25 or 25%

9. What is the dollar amount change on a $100.00 item that is marked down 50%? $50.00
What is the new price? $50.00

$100 × 0.50 = $50. $100 – $50 = $50

10. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

Book inventory is done just by keeping records, while physical inventory requires an actual count. Physical inventory is required because book inventory may be inaccurate.

11. List some of the facts a physical inventory gives to management.

- Actual number of items on hand by description, stock number, and department
- Actual dollar cost invested in inventory (and retail value) at the time inventory is taken
- Condition of items inventoried
- If there is old stock that should be rotated so that it is sold first
- Exact amount of shrinkage and where it occurs most often

Pretest for Unit V: Invoices

Assignments 14, 15, and 16

Do the following two problems by placing the correct information in each blank, based on the stated terms.

1. The invoice is dated May 6, for merchandise costing $1,100.00 received July 28. Terms are 8/10 ROG.

   Amount saved by taking discount $88.00
   Amount paid if discount taken $1,012.00
   Last date for taking discount August 7
   Last date for paying net amount if discount not taken August 27

2. The invoice is dated August 11 for merchandise in the amount of $960.00 with terms of 3/10, net 30, X60.

   Amount saved by taking discount $28.80
   Amount paid if discount taken $931.20
   Last date for taking discount October 20
   Last date for paying net amount if discount not taken November 9

3. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

   These are used to refer to the specific invoice and situation when writing about or discussing the shipment.

4. Which items of information on an invoice are used when checking the specific merchandise received?

   These include stock locator number, quantity, description, price, and amount columns.

5. Why is it important to know the number of packages?

   This lets the receiver know if any packages are missing from the shipment.

6. Why are shipping instructions provided on the invoice, and why are they important?

   Shipping instructions may or may not be followed. This can affect the transportation charges to be paid, as well as other matters.

7. What is the relationship between transportation charges and cost of merchandise?

   Transportation charges if paid by the retailer become part of the cost of merchandise which must be reflected in the retail sales price.

8. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart provided.

102 a. August 10 to November 20
74 b. July 18 to September 30
147 c. March 12 to August 6

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Posttest for Unit V: Invoices

Assignments 14, 15, and 16

Do the following two problems by placing the correct information in each blank, based on the stated terms.

1. Terms are 4/15, n/45 X30. The invoice dated December 10 is for \$4,500.00.

   Amount saved by taking discount \$180.00
   Amount paid if discount taken \$4,320.00
   Last date for taking discount January 24
   Last date for paying net amount if discount not taken February 23

2. Invoice terms are 6/10, net 30, EOM. The invoice is dated April 11 for \$925.00.

   Amount saved by taking discount \$ 55.50
   Amount paid if discount taken \$869.50
   Last date for taking discount May 10
   Last date for paying net amount if discount not taken May 30

3. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

   These are used to refer to the specific invoice and situation when writing about or discussing the shipment.

4. Which items of information on an invoice are used when checking the specific merchandise received?

   These include stock locator number, quantity, description, price, and amount columns.

5. Why is it important to know the number of packages?

   This lets the receiver know if any packages are missing from the shipment.

6. Why are shipping instructions provided on the invoice, and why are they important?

   Shipping instructions may or may not be followed. This can affect the transportation charges to be paid, as well as other matters.

7. What is the relationship between transportation charges and cost of merchandise?

   Transportation charges if paid by the retailer become part of the cost of merchandise which must be reflected in the retail sales price.

8. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart provided.

94 a. June 8 to September 10
54 b. January 2 to February 25
156 c. April 12 to September 15

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

Pretest for Unit VI: Computing Employee Earnings

Assignments 17, 18, 19, and 20

1. Harold began working at 4:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? 6.25 His hourly rate is $4.40 per hour. What was his gross pay? $27.50

   Hours worked, 6 1/4 or 6.25. $4.40 × 6.25 = $27.50

2. Julia Greene is paid $5.00 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. How many dozen assemblies did she complete? 27 What was Julia's gross pay for the week? $135.00

   Assemblies 27 dozen × $5.00 per dozen = $135.00

3. Jimmy's time card shows the following information. How many hours did he work on the two days shown? 11 Based on an hourly rate of $3.80, what was his gross pay for those two days? $41.80

	Monday	Tuesday	
Time in	10:30 a	Time in	2:00 p
Time out	4:30 p	Time out	7:00 p
	6 hours		5 hours

   11 hours $3.80 × 11 hours = $41.80

4. Harry Jones has a quota of $615.00 per week in sales, receives a salary of $300.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00? $318.25

   $980 – 615 = $365 over quota. 0.05 × $365 = $18.25 commission

   $300 + 18.25 = $318.25 total pay for the week

5. Morty Santos is a salesperson employed on a straight commission of 12% of sales. Last month he sold merchandise amounting to a total of $105,425.00. What was his pay for the month? $12,651.00

   0.12 × $105,425 = $12,651

6. Sam Wilkerson is a traveling representative who receives a commission of 15% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month? $1,149.00

   $5,660 × 0.15 = $849 $849 + 300 = $1,149

7. R.T. Morton is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $30,000.00, plus a bonus of 1% of the net company sales. Last year the firm had net sales of $44,250,000.00. What were his total earnings for this year? $472,500.00

$\$44{,}250{,}000 \times 0.01 = \$442{,}500$ $\$30{,}000 + 442{,}500 = \$472{,}500$

8. A salesperson in the men's furnishings department received a salary of $800.00 for one month plus commissions of $425.00. His net sales were $10,732.00 for the month. What was his percentage of selling cost to the store? 11.4%

$$\begin{array}{r} \$800 \\ \underline{425} \\ \$1{,}225 \end{array} \text{ total compensation}$$

$\frac{\$1{,}225}{\$10{,}732} = 0.114$ or 11.4% selling cost

9. One of the salespeople in the housewares department had a slow week. Her salary last week, including commissions, was $65.00, and her sales were $800.00. This week she sold $1,500.00 and received $90.00 in salary and commissions. How much did her selling cost percentage decrease the second week? 2%

$\frac{65}{800} = 0.08$ or 8% $\frac{90}{1500} = 0.06$ or 6%. Selling cost % fell 2%.

Match each of the following terms to the appropriate definition:

10. b gross pay
11. d hourly wage
12. f military time
13. c overtime (OT)
14. g piece-rate
15. e rate
16. h termination offense
17. a wages

a. money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis
b. all pay added together
c. time and a half pay scale
d. an established rate for each hour worked
e. amount of pay for a unit of work. Units are usually hours, pieces of work, or days worked.
f. adding the number twelve to all hours worked between noon and midnight
g. employee is paid by the number of units produced or finished
h. breaking a company rule for which you can expect to be "fired"

Match terms to correct definitions:

18. c bonuses
19. f filing status
20. e F.I.C.A.
21. a fringe benefits
22. h P.M.'S (premium money)
23. g involuntary deductions
24. b payroll deductions
25. j payroll

a. nonmonetary compensations an employee may receive in addition to regular earnings
b. any monies taken out of earnings before you receive them
c. extra money awarded for outstanding sales performance or for selling specific items
d. money given to encourage greater effort or increased productivity
e. Social Security
f. whether the worker is single, married, filing separately of spouse, jointly with spouse, and the number of people dependent on a worker for support
g. federal income tax and F.I.C.A.
h. money earned by selling specific merchandise or working record hard-to-staff hours

26. d pay incentives

27. k voluntary deductions

28. i withholding tax

29. e is paid by both the employee and employer each month

i. federal income tax

j. ledger used to keep track of times worked and rates paid to different workers

k. Red Cross contributions and payroll savings plan

Posttest for Unit VI: Computing Employee Earnings

Assignments 17, 18, 19, and 20

1. Josh began working at 5:30 A.M. and stopped working at 11:45 A.M. How many hours did he work? 6.25 His hourly rate is $4.20. What was his gross pay? $26.25

   6.25 hours worked × $4.20 per hour = $26.25 gross pay

2. Judy works on the production line at Inasco. Her pay is based on a piece rate of $0.90 per circuit board. Last week, she completed 83 on Monday, 71 on Tuesday, 62 on Wednesday, 84 on Thursday, and 86 on Friday. How much was Judy's gross pay for the week? $347.40

   386 circuit boards × 0.90 each = $347.40

3. Roland's time card shows that he "punched in" at 10 A.M. and "punched out" at 3:30 P.M. His hourly rate is $4.00. How many hours did Roland work? $5.50 What was his gross pay for the day's work? $22.00

   5.50 hours worked × $4 per hour = $22.00

4. Jo's time card shows she worked these hours on the two days. Based on an hourly rate of $4.30, what was her gross pay for those two days? $40.85

Time in	11:30 a	Time in	1:00 p
Time out	4:00 p	Time out	6:00 p
	4:30 hours		5 hours

   9.50 hours worked × $4.30 = $40.85

5. Harry Jones has a quota of $625.00 per week in sales, receives a salary of $200.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00? $217.75

   $980 – 625 = $355 over quota $355 × 0.05 = $17.75
   $17.75 + 200 = $217.75

6. Tom Sewell is a traveling representative who receives a commission of 20% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month? $1,432.00

   $5,660 × 0.20 = $1,132
   300
   $1,432

7. J.B. Kelly is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $20,000.00 plus a bonus of 1% of the net company sales. Last year the firm had net sales of $2,250,000.00. What were his total earnings for this year? $42,500.00

$2,250,000 × 0.01 = $22,500
20,000
$42,500

8. Kirk Broder is the manager of the menswear department at Harkins department store. Kirk is paid $780.00 per month plus 1% commission on net sales of his department. During October the department sold $22,000.00 with $450.00 returns. How much was Kirk's gross pay for the month? $995.00

$22,000 – $450 returns = $21,550 net sales
$21,550 net sales × 0.01 = $215
$215 + 780 = $995.00

9. A salesperson in the men's furnishings department received a salary of $200.00 for one month plus commissions of $325.00. His net sales were $11,732.00 for the month. What was his percentage of selling cost to the store? 5%

$\frac{\$535}{\$11,732}$ = 0.456 or 5% selling cost to the store

10. One of the salespeople in the housewares department had a slow week. Her salary, including commissions, was $65.00, and her sales were $800.00. This week she sold $1,500.00 and received $90.00 in salary and commissions. How much did her selling cost percentage decrease the second week? 2%

$\frac{65}{800}$ = 0.08 or 8%　　$\frac{90}{1500}$ = 0.06 or 6%　　Decrease was 2%.

Match each of the following terms to the appropriate definition:

11. __b__ gross pay
12. __d__ hourly wage
13. __f__ military time
14. __c__ overtime (OT)
15. __g__ piece-rate
16. __e__ rate
17. __h__ termination offense
18. __a__ wages

a. money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis
b. all pay added together
c. time and a half pay scale
d. an established rate for each hour worked
e. amount of pay for a unit of work. Units are usually hours, pieces of work, or days worked.
f. adding the number 12 to all hours worked between noon and midnight
g. employee is paid by the number of units produced or finished
h. breaking a company rule for which you can expect to be "fired"

Match term to correct definition:

19. __c__ bonuses
21. __f__ filing status
22. __e__ F.I.C.A.
23. __a__ fringe benefits
24. __h__ P.M.'S (premium money)

a. nonmonetary compensations an employee may receive in addition to regular earnings
b. any monies taken out of earnings before you receive them
c. extra money awarded for outstanding sales performance or for selling specific items
d. money given to encourage greater effort or increased productivity
e. Social Security
f. whether the worker is single, married, filing separately of spouse, jointly with spouse, and the number of people dependent on a worker for support

25. g involuntary deductions
26. b payroll deductions
27. j payroll record
28. d pay incentives
29. k voluntary deductions
30. i withholding tax
31. e is paid by both the employee and employer each month

g. federal income tax and F.I.C.A.
h. money earned by selling specific merchandise or working hard-to-staff hours
i. federal income tax
j. ledger used to keep track of times worked and rates paid to different workers
k. Red Cross contributions and payroll savings plan

Pretest for Unit VII: Formulating a Purchase Plan

Assignments 21, 22, and 23

1. The Melletic Company has net sales of $225,000.00 and an average inventory of $11,000.00. What was their stockturn rate? 20.45

$$\frac{225{,}000}{11{,}000} = 20.45$$

2. In your bicycle shop, you carry a line of riding accessories. Your average stock of helmets during the year was 10. During this same year, you sold 80 helmets. What was the stockturn rate for helmets that year? 8

$$\frac{80}{10} = 8$$

3. If the stockturn rate on your riding shorts was found to be 0.10 for an average month, what could you estimate the stockturn rate for the year to be? 1.2

$0.10 \times 12 = 1.2$

4. Would you rather have a 35% profit margin with four stockturns a year, or a 20% profit margin with eight stockturns per year? 8 stockturns at 20% Why? It produces more profit.

$0.35 \times 4 = 1.4$
$0.20 \times 8 = 1.6$

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? $23,500.00

$$\frac{20{,}000 + 26{,}500 + 24{,}000}{3} = \frac{70{,}500}{3} = \$23{,}500$$

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? 5.29

$$\frac{225{,}000}{42{,}500} = 5.29$$

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. $32,250.00

$$\frac{32{,}500 + 34{,}600 + 29{,}200 + 32{,}700}{4} = \$32{,}250$$

8. If the amount of net sales for February was $22,000.00 and BOM stock was $32,000.00, what would be the stock-sales ratio? 1.45

$$\frac{32{,}000}{22{,}000} = 1.45$$

9. On November 30 the inventory for the coat department was $55,230.00 at retail. In December $42,300.00 worth of merchandise was sold, and $19,420.00 worth of merchandise was received during the month. What was the EOM inventory? $32,500

$55,230	Nov 30 inventory	$74,650	total
+ 19,420	bought in December	– 42,300	sold
$74,650	Total	$32,350	

10. If net sales for the month of October were $60,000.00 and the September EOM stock was $74,000.00, what would the stock-sales ratio be? 1.23

$$\frac{74{,}000}{60{,}000} = 1.23$$

11. The stock-sales ratio for Oberkamp was 1.85, and net sales for that month were $30,000.00. How much stock (retail value) was on hand? $55,500.00

$30,000 × 1.85 = $55,500

12. The stock-sales ratio for Benwall's is 2.8. The EOM stock for the previous month (retail value) was $29,000.00. What were the sales for this period? $10,357.14

$$\frac{29{,}000}{2.8} = \$10{,}357.14$$

Fill in the blank with the term appropriate to the given definition:

13. The amount of inventory that a business starts with at the beginning of the month is known as the beginning of month or BOM inventory.

14. When a business counts every piece of inventory, this is called taking a physical inventory.

15. The amount of inventory determined by using records is called the book inventory.

16. $\frac{\text{Inventory or stock on hand (retail price)}}{\text{sales}} =$ stock-sales ratio

17. Why is it important to know the open-to-buy figure?

Open-to-buy makes it possible to take advantage of buying opportunities.

18. If planned inventory for the beginning of a period is $10,000.00, ending inventory is $15,000.00, and planned sales are $28,000.00, what would be the planned purchases? $33,000.00

$28,000	planned sale
+ 15,000	ending inventory
$43,000	
– 10,000	beginning inventory
$33,000	planned purchases

19. If inventory for the beginning of a period is $10,000.00, the ending inventory is $15,000.00, planned sales are $28,000.00, and there is $3,000.00 on order, what would be the open-to-buy figure? $30,000.00

$28,000	sales
+ 15,000	ending inventory
$43,000	total
– 10,000	beginning inventory
$33,000	needed
– 3,000	on order
$30,000	open-to-buy

20. The beginning inventory for April is $18,000.00; closing inventory desired is $25,000.00; sales for the period are projected as $60,000.00. Already ordered is $10,000.00 worth of merchandise. What is the open-to-buy figure? $53,000.00 open-to-buy

$60,000	sales
+ 25,000	ending inventory
$85,000	total
– 18,000	beginning inventory
$63,000	needed
– 10,000	on order
$53,000	open-to-buy

21. Determine the open-to-buy for each department.

	Planned Purchases	Received	On Order	Open-to-Buy
Ladies	$5,600	$1,600	None	$4,000
Men's	$3,800	None	None	$3,800

Ladies	$5,600	planned purchases
	– 1,600	received
	$4,000	open-to-buy

Men's	$3,800	planned purchases
	– 0	received and on order
	$3,800	open-to-buy

Posttest for Unit VII: Formulating a Purchase Plan

Assignments 21, 22, and 23

1. The Melletic Company has net sales of $225,000.00 and an average inventory of $12,000.00. What was their stockturn rate? 18.75

$$\frac{225{,}000}{12{,}000} = 18.75$$

2. In your bicycle shop, you carry a line of riding accessories. Your average stock of helmets during the year was 10. During this same year, you sold 80 helmets. What was the stockturn rate for helmets that year? 8

$$\frac{80}{10} = 8$$

3. If the stockturn rate on your riding shorts was found to be 0.10 for an average month, what could you estimate the stockturn rate for the year to be? 1.2

$$0.10 \times 12 = 1.2$$

4. Would you rather have a 45% profit margin with four stockturns a year, or a 30% profit margin with eight stockturns per year? 30% 8 times a year Why? It's more profitable.

$$0.45 \times 4 = 1.80, \text{ and } 0.30 \times 8 = 2.40$$

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? $23,500.00

$$\frac{20{,}000 + 26{,}500 + 24{,}000}{3} = \frac{70{,}500}{3} = \$23{,}500$$

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? 5.29

$$\frac{225{,}000}{42{,}500} = 5.29$$

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. $32,250.00

$$\frac{32{,}500 + 34{,}600 + 29{,}200 + 32{,}700}{4} = \$32{,}250$$

8. If the amount of net sales was $32,000.00 this month, and the BOM was $42,000.00, what would be the stock-sales ratio? 1.31

$$\frac{42{,}000}{32{,}000} = 1.31$$

9. On November 30, the inventory for the coat department was $55,230.00 at retail. During December, $42,300.00 worth of merchandise was sold, and $19,420.00 worth of merchandise was received. What was the December EOM inventory? $32,350.00

$55,230	inventory	$74,650	
+ 19,420	received	− 42,300	sold
$74,650		$32,350	EOM

10. If net sales for the month of October were $70,000.00, and the EOM stock for September was $84,000.00, what would the stock-sales ratio be? 1.2

$$\frac{84{,}000}{70{,}000} = 1.2$$

11. The stock-sales ratio for Washeka was 2.85, and net sales for the month were $50,000.00. How much stock (retail value) was on hand? $142,500.00

$\$50{,}000 \times 2.85 = \$142{,}500$

12. The stock-sales ratio for Benwall's is 2.8. The BOM stock (retail value) for September was $29,000.00. What were the sales for this period? $10,357.14

$$\frac{\$29{,}000}{2.8} = \$10{,}357.14$$

Fill in the blank with the term appropriate to the definition given:

13. The amount of inventory that a business starts with at the beginning of the month is known as the BOM or beginning of month inventory.

14. When a business counts every piece of inventory, it is called a physical inventory.

15. A book inventory is done by keeping records.

16. $\frac{\text{Inventory or stock on hand (retail price)}}{\text{sales}} =$ stock-sales ratio

17. Determine the open-to-buy for each department.

	Planned Purchases	Received	On Order	Open-to-Buy
Children's	$5,500	$900	$1,200	$3,400
Housewares	$19,000	None	$12,600	$6,400
Sports	$4,500	$850	$2,025	$1,625

Children's	$5,500	planned purchases
	− 2,100	received and on order
	$3,400	open-to-buy

Housewares	$19,000	planned purchases
	− 12,600	on order
	$6,400	open-to-buy

Sports	$4,500	planned purchases
	− 2,875	received and on order
	$1,625	open-to-buy

Pretest for Unit VIII: Purchasing Merchandise

Assignments 24, 25, and 26

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
A					
	1. Last year	$80,000	$60,000	$40,000	$180,000
SALES	2. Planned + 10%	$88,000	$66,000	$44,000	$198,000
	3. Actual				
B					
RETAIL					
STOCK	4. Last year	$160,000	$120,000	$80,000	
(BOM)	5. Planned	$176,000	$132,000	$88,000	
	6. Actual				
C					
REDUC-	7. Last year 5%	$4,000	$3,000	$2,000	
TIONS	8. Planned 5%	$4,400	$3,300	$2,200	
% sales	9. Actual				
D					
PUR-	10. Last year	$44,000	$23,000		
CHASES	11. Planned	$48,400	$25,300		
IN $	12. Actual				

2. Define *purchase order*.

   A purchase order is a written contract sent to a supplier to order merchandise.

3. List ten pieces of information that should be included on a purchase order.

   These can be any ten items from the following list:

   (1) Purchase order number
   (2) Merchant buying the order
   (3) Vendor's name and address
   (4) Address to ship merchandise to
   (5) Date the order was placed
   (6) Date by which merchandise should be received
   (7) Terms of payment
   (8) F.O.B. location
   (9) Ship via
   (10) Quantity
   (11) Description of merchandise
   (12) Price @ (each)

(13) Amount
(14) Buyer
(15) Manager
(16) Total
(17) Signature

4. This means that the price follows changes in federal guidelines, the international market, or stock market activity: base pricing

5. This means that prices are the same for every customer, regardless of the quantity bought. fixed pricing

6. The price is marked up by a factor in a published form to help retailers price the product to the consumer and at the same time know what the product will cost them. keystone pricing

7. Mr. Heggerd's jewelry store offers a line of diamond pendants that retail for $450.00 to $2,100.00. Mr. Heggerd buys the pendants for $150.00 to $700.00. What is the keystone? three

Posttest for Unit VIII: Purchasing Merchandise

Assignments 24, 25, and 26

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

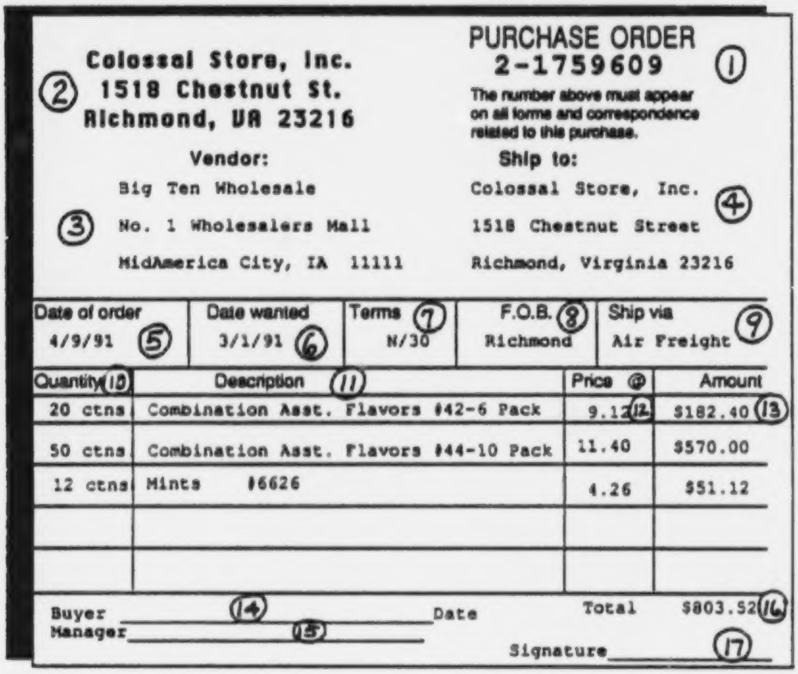
Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
A					
	1. Last year	$10,000	$8,000	$6,000	$24,000
SALES	2. Planned + 10%	$11,000	$8,800	$6,600	$26,400
	3. Actual				
B					
RETAIL					
STOCK	4. Last year	$20,000	$16,000	$12,000	
(BOM)	5. Planned	$22,000	$17,600	$13,200	
	6. Actual				
C					
REDUC-	7. Last year 5%	$500	$400	$300	
TIONS	8. Planned 5%	$550	$440	$330	
% sales	9. Actual				
D					
PUR-	10. Last year	$6,500	$4,400		
CHASES	11. Planned	$7,150	$4,840		
IN $	12. Actual				

2. Find the following information on the purchase order shown. Place the labeling number, such as (1), (2), (3), etc., beside each one:

(1) A unique number used only for each particular order. It helps keep track to determine if any orders are missing.
(2) Merchant buying the order
(3) Vendor's name and address
(4) Address to ship merchandise to
(5) Date the order was placed
(6) Date by which merchandise should be received
(7) Information on when payment is due, and discounts allowable or expected
(8) The point to which merchandise will be shipped free
(9) How merchandise is to be shipped
(10) Number in which each item is to be shipped
(11) Description of merchandise
(12) The price per unit shipped
(13) The extension obtained by multiplying quantity times the price per unit
(14) Name of person who originated the order
(15) Name of person who approved the order
(16) How much the merchandise cost
(17) Signature of person responsible for the order



Colossal Store, Inc.
② **1518 Chestnut St.**
Richmond, VA 23216

PURCHASE ORDER
2-1759609 ①
The number above must appear on all forms and correspondence related to this purchase.

Vendor:
Big Ten Wholesale
③ No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:
Colossal Store, Inc. ④
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms ⑦	F.O.B. ⑧	Ship via ⑨
4/9/91 ⑤	3/1/91 ⑥	N/30	Richmond	Air Freight

Quantity ⑩	Description ⑪	Price @	Amount
20 ctns	Combination Asst. Flavors #42-6 Pack	9.12 ⑫	$182.40 ⑬
50 ctns	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns	Mints #6626	4.26	$51.12

Buyer ____⑭____ Date
Manager ____⑮____
Total $803.52 ⑯
Signature ____⑰____

3. A price regulated by a pricing structure that is uniform through the industry, nationally, or internationally is a base price.

4. Pricing in which a one-price-for-everybody policy exists is called fixed pricing.

5. Keystone pricing is pricing in which the wholesale price is increased by a certain factor to arrive at the retail price.

6. Variable pricing is pricing in which the price can change based on negotiation between customer and seller, or by variations from a base price.

7. The engagement ring that Tom and Sue wanted was not available in the retail store. Mrs. Longdon found exactly what they wanted in the Serpco catalog for $2,800.00, and she offered to order it for them. She promised delivery within two weeks. The ring was quadruple keystoned. How much did the store pay for the ring? $700.00 What was the pricing used? keystone pricing

$$\frac{\$2800}{4} = \$700$$

Pretest for Unit IX: Finding Retail Price

Assignments 27, 28, and 29

1. Mr. Warren wants to make a $1.00 profit on each of the doll tables he sells. The tables cost him $11.00 each. His overhead is $2.50 per table. What would the selling price be? $14.50 How much would his markup be for each table in dollars? $3.50 in percentage? 24%

   $\$1.00 + 2.50 + 11.00 = \$14.50$

   $\frac{3.50}{14.50} = 24\%$

2. An item is sold for $30.00. The overhead expenses are $6.00, and the cost is $6.30. What is the profit (in dollars) sought for this item? $17.70 What is the markup percentage? 41%

   $30.00 retail – 12.30 in overhead and costs = $17.70

   $\frac{12.30}{30} = 0.41$ or 41%

3. If a tennis racket costs the merchant $32.00 and the markup is $8.00, what is the percentage markup based on retail? 20% What is the cost percentage based on retail? 80%

   $32.00 + 8.00 = $40.00 retail price

   $\frac{8}{40} = 0.20$ or 20% markup

   $\frac{32}{40} = 0.80$ or 80%

4. If an item sells for $27.00 and the markup is 44%, what is the amount of the markup? $11.88 What is the cost of the item? $15.12

   $\$27 \times 0.44 = \$11.88$ markup
   $\$27.00 - 11.88 = \$15.12$ cost

5. If the cost of an item is $36.00 and that cost is 55% of the retail price, what is the markup percentage of the item? 45% What is the markup in dollars? $29.45 What does the item retail for? $65.45

   $\frac{36}{55} = \$65.45$ retail price $0.45 \times 65.45 = \$29.45$ markup in dollars

6. If the cost of an item is $50.00 and the markup is 41%, what is the retail price of that item? $84.75

   $\frac{\$50}{0.59} = \$84.745$ or $84.75

7. If the markup is 35% and the cost is $15.00, what is the retail price? $23.08

$\frac{\$15}{0.65}$ = $23.076 or $23.08

8. If the cost of an item is 53% and the cost is $22.00, what is the retail price? $41.51

Retail price $= \frac{\text{Cost \$}}{\text{Cost \%}} = \frac{22}{0.53} =$ $41.509 or $41.51

9. If the selling price of an item is $60.00 and the cost is $40.00, what is the percentage markup based on retail? 34%

$60 – 40 = $20 markup and $\frac{20}{60}$ = 0.333 or 34%

10. The selling price of item A is $20.00, and the markup is $10.00. The selling price of item B is $12.00, and the markup is $9.00. What is the markup percentage for item A? 50% What is the markup percentage for item B? 67%

Item A $\frac{10}{20}$ = 0.50 or 50%

Item B $\frac{8}{12}$ = 0.666 or 67%

11. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $80.00 before it finally sold.

What was the initial margin in dollars? $50.00 In %? 46%
What was the margin when the item was marked down to $80.00?
in dollars? $20 in %? 25%

$110 – 60 = $50 original margin 50/110 = 0.454 or 46%
$80 – 60 = $20 margin
$\frac{20}{80}$ = 25%

12. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? $50.00

$$\frac{30}{100\% - 40\%} = \frac{\$30}{0.60} = \$50$$

13. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $32.00. If the shop takes a 68% margin on cost, what will be the selling price of the mitt? $100.00

$$\frac{\text{Cost in \$}}{100\% - \text{margin}} = \frac{\$32}{0.32} = \$100$$

14. A plant shop buys cactus plants at $6.80 per item. Retail price for the plants is set at $11.80 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? $5.00

$11.80 – 6.80 = $5.00 per plant for fixed expenses and profit

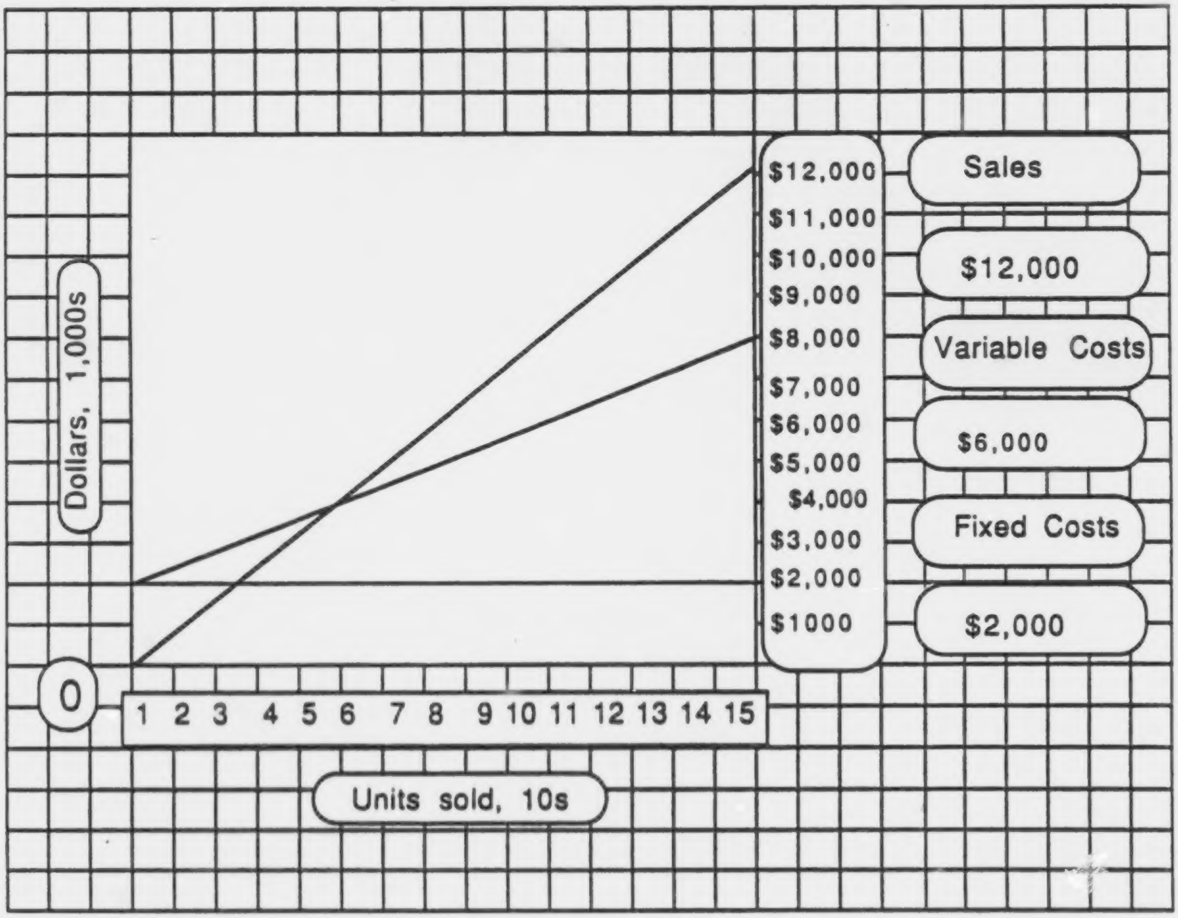
How many plants will have to be sold to meet fixed expenses? 400

$2,000 ÷ $5 = 400 plants that must be sold to meet all fixed expenses and begin to make a profit

15. Draw a break-even graph using the following information, then interpret your results. How many units must be sold to break even? 50 What is the profit at 150 units? $4,000.00

Management expects to sell 150 units at $80.00 each, retail price.
The fixed costs for the department are $2,000.00 for the month.
The only variable cost is that for buying the merchandise, and it is 50% of retail price.

$80 × 50 = $4,000
– 2,000 fixed costs
$2,000 to pay variable costs, which are 50% of total received, or $2,000



Posttest for Unit IX: Finding Retail Price

Assignments 27, 28, and 29

1. Mr. Warren wants to make a \$3.00 profit on each of the doll tables he sells. The tables cost him \$10.00 each. His overhead is \$2.50 per table. What would the selling price be? \$15.50 How much would his markup be for each table in dollars? \$5.50 in percentage? 36%

   \$3.00 + 2.50 + 10.00 = \$15.50

   $\frac{5.50}{15.50} = 0.355$ or 36%

2. An item is sold for \$40.00. The overhead expenses run \$8.00, and the cost is \$16.00. What is the profit (in dollars) sought for this item? \$16.00 What is the markup percentage? 40%

   \$40.00 retail – 24.00 in overhead and costs = \$16.00

   $\frac{16}{40} = 40\%$

3. If a tennis racket costs the merchant \$32.00, and the markup is \$11.00, what is the markup percentage based on retail? 26% What is the retail price? \$43.00 What is the cost percentage based on retail? 74%

   \$32.00 + 11.00 = \$43.00 retail price

   $\frac{11}{43} = 0.256$ or 26% markup

   $\frac{32}{43} = 0.744$ or 74%

4. If an item sells for \$27.00 and the markup is 50%, what is the amount of the markup in dollars? \$13.50 What is the cost of the item? \$13.50

   \$27 × 0.50 = \$13.50 markup
   \$27.00 – 13.50 = \$13.50

5. If the cost of an item is \$36.00 and that cost is 60%, what is the markup percentage of the item? 40% What is the markup in dollars? \$24.00 What does the item retail for? \$60.00

   $\frac{36}{0.60} = \$60.00$ retail price   0.40 × 60= \$24.00 markup in dollars

6. If the cost of an item is \$50.00 and the markup is 60%, what is the retail price of that item? \$125.00

   $\frac{\$50}{0.40} = \$125$

7. If the markup is 40% and the cost is $15.00, what is the retail price? $25.00

$$\frac{\$15}{0.60} = \$25$$

8. If the cost of an item is 60% and the cost is $200.00, what is the retail price? $333.34

$$\text{Retail price} = \frac{\text{Cost \$}}{\text{Cost \%}} = \frac{\$200}{0.60} = \$333.34$$

9. If the selling price of an item is $60.00 and the cost is $45.00, what is the percentage markup based on retail? 25%

$$\$60 - 45 = \$15 \text{ markup and } \frac{15}{60} = 0.25 \text{ or } 25\%$$

10. The selling price of item A is $20.00, and the markup is $10.00. The selling price of item B is $15.00, and the markup is $9.00.

What is the markup percentage for item A? 50%

What is the markup percentage for item B? 60%

$$\text{Item A } \frac{10}{20} = 0.50 \text{ or } 50\%$$

$$\text{Item B } \frac{9}{15} = 0.60 \text{ or } 60\%$$

11. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $95.00 before it finally sold.

What was the initial margin in dollars? $50 In %? 46%
What was the margin when the item was marked down to $95.00?
In dollars $35.00 In %? 37%

$110 – $60 = $50 original margin	$50/110 = 0.455 or 46%
$95 – $60 = $35 margin	$35/$95 = 0.368 or 37%

12. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? $50.00

$$\frac{\$30}{100\% - 40\%} = \frac{\$30}{0.60} = \$50$$

13. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $25.50. If the shop takes a 66-2/3% margin on cost, what will be the selling price of the mitt? $77.28

$$\frac{\text{Cost in \$}}{100\% - \text{margin}} = \frac{\$25.50}{0.33} = \$77.27 \text{ or } \$77.28$$

14. A plant shop buys cactus plants at $6.00 per item. Retail price for the plants is set at $10.00 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? $4.00

$10 – 6 = $4.00 per plant for fixed expenses and profit

How many plants will have to be sold to meet fixed expenses? 500

$2,000 ÷ $4 = 500 plants that must be sold to meet all fixed expenses and begin to make a profit

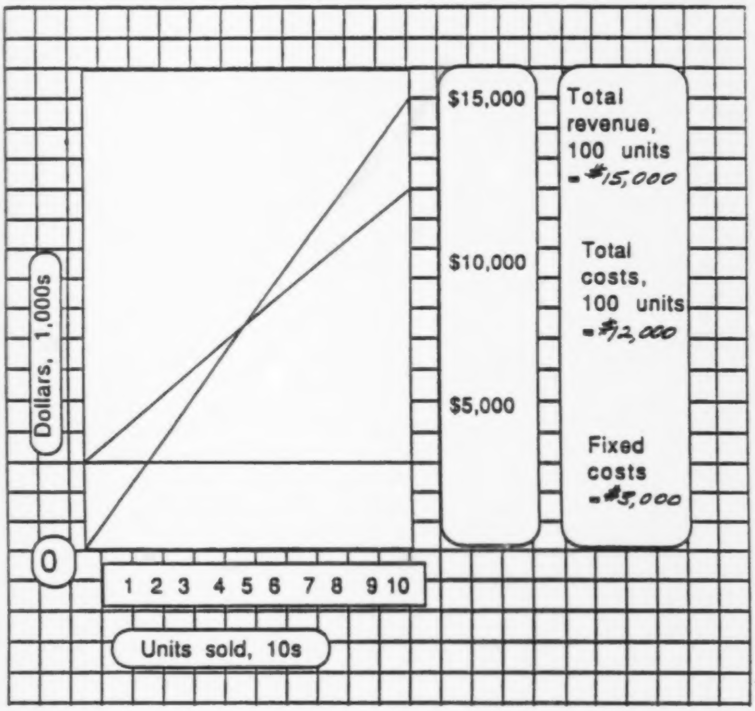
15. Draw a break-even graph using the following information, then interpret your results.
Approximately how many units must be sold just to break even? 50 (From looking at graph and doing calculations shown)
What is the profit if all 150 units are sold? $3,000.00

Calculations:

Management expects to sell 100 units at $150.00 each, retail price.
$150 × 100 = $15,000
The fixed costs for the department are $3,000.00 for the month.
The total variable costs are 60% of retail.
60% = $90, and $90 × 100 = $9,000
Income from 100 units is $15,000, minus $12,000 costs = $3,000 profits

50 units × $150 = $7,500
Fixed costs – 3,000
$4,500

Variable costs, $90 × 50 = $4,500
and $4,500 – $4,500 = 0, breakeven



Pretest for Unit X: Financial Statements

Assignments 30, 31, and 32

1. Grayco's sales for the year were $325,000.00. They had allowed $1,000.00 in discounts for nonprofit organizations, and had received $2,005.00 in returned merchandise. Grayco began the year with $98,000.00 in inventory and purchased an additional $150,000 worth of merchandise. They ended the year with $98,000.00 worth of merchandise in inventory.

   Grayco had an advertising budget of $2,800.00 local and $3,200.00 national. Their payroll amounted to $98,000.00 for the year. They paid a yearly property tax of $3,300.00, and their utilities averaged $400.00 per month. Property upkeep was $8,000.00 for the year.

   In addition to their sales revenue, Grayco received $5,000.00 per quarter for rental of other property and were able to negotiate the sale of $600.00 per month for their waste materials.
   On the form provided, complete Grayco's income statement for the quarter.

Grayco
Income Statement
For the year ending December 31, 19___

Operating Income			
1. Sales	$325,000		
2. Less returns, discounts, allowances	$3,005		
3. = Net sales		$321,995	
4. Less cost of goods sold		$150,000	
5. = GROSS MARGIN		$171,995	
Operating Expenses			
6. Employee compensations	$98,000		
7. Property tax	$3,300		
8. Utilities	$4,800		
9. Advertising expense	$6,000		
10. Property upkeep	$8,000		
11. = TOTAL OPERATING EXPENSE		– $120,100	
12. NET OPERATING INCOME			$51,895
Other Income			
13. Total rental income		$20,000	
14. Sale of waste materials		$7,200	
15. = TOTAL OTHER INCOME			$27,200
16. NET INCOME			$79,095

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2. A small store has assets of $12,500.00 and liabilities of $5,600.00. What is the proprietorship of the business? $6,900.00

429

$12,500 – 5,600 = $6,900

3. A small newsstand has assets of cash, $570.75; accounts receivable, $280.60; stock on hand, $1,620.00; and equipment and fixtures, $2,650.00. Its liabilities are accounts payable, $1,500.00; note due to First State Bank, $500.00. What is the net worth of the newsstand? $3,121.35

Assets	Liabilities
$570.75	$1,500
280.60	500
1,620.00	$2,000
2,650.00	
$5,121.35	

and $5,121.35 – 2,000 = $3,121.35

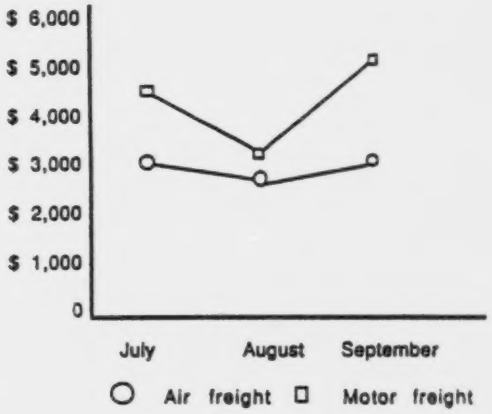
Match the terms on the left to the statements on the right.

i	4. asset	a. shows what the business owns, what it owes, and how much it is worth
a	5. balance sheet	b. term used to describe a company that has the ability to pay all of its debts
d	6. current assets	c. a synonym for owner's equity or proprietorship
f	7. equity	d. can be converted into cash within a one-year business cycle
e	8. fixed assets	e. things the company owns that will be used for more than a year
g	9. liabilities	f. the amount left over when liabilities have been subtracted from assets
c	10. net worth	g. the financial obligations that a company has to creditors
h	11. proprietorship	h. a synonym for owner's equity or net worth
b	12. solvent	i. anything a business owns that has value
		j. all of the money spent by a business
		k. being sued for injuries

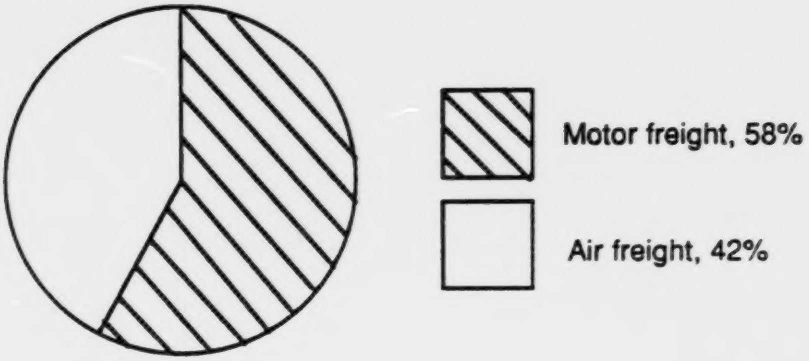
13. Using the following information, plot a graph showing the related costs of the two modes of shipment for the three months listed.

Interstate Mercantile ships by both air freight and motor freight.

	Air	Motor
July	$3,200	$4,600
August	2,900	3,400
September	3,300	5,100



14. From the same information, draw a pie chart comparing the amount spent on air freight and the amount spent on motor freight. The total amount is 100%.



Posttest for Unit X: Financial Statements

Assignments 30, 31, and 32

1. Killian's sales for the first half of the year were $116,666.68. Sales were $233,333.32 for the second half of the year. They had allowed $1,200.00 in discounts for nonprofit organizations, and had received $6,800.00 in returned merchandise.

   Killian's began the year with $102,000 in inventory and purchased an additional $150,000.00 worth of merchandise. During the year they returned $2,500.00 worth of merchandise to vendors and ended the year with $88,000.00 worth of merchandise in inventory.

   Since Killian's has the benefit of a great deal of cooperative advertising, their advertising budget was a low $2,800.00, but their payroll amounted to $129,000.00 for the year. They paid a yearly rent rate of $16,000.00 and a street service $40.00 per month to sweep the parking lot. Their utilities averaged $160.00 per month.

   In addition to their sales revenue, Killian's received $40,550.00 for rental of other property and was able to negotiate the sale of $20,000.00 of their waste materials to a nearby pig farm. On the form provided, complete Killian's income statement for the year.

Killian's Supply

Income Statement

For the year ending December 31, 19___

Operating Income			
1. Sales	$350,000		
2. Less returns, discounts, allowances	$8,000		
3. = Net sales		$342,000	
4. Less cost of goods sold		$161,500	
5. = GROSS MARGIN		$180,500	
Operating Expenses			
6. Employee compensations	$129,000		
7. Rent	$16,000		
8. Utilities	$1,920		
9. Advertising expense	$2,800		
10. Property upkeep	$480		
11. = TOTAL OPERATING EXPENSE		– $150,200	
12. NET OPERATING INCOME			$30,300
Other Income			
13. Property rental		$40,550	
14. Waste materials sale		$20,000	
15. = TOTAL OTHER INCOME			$60,550
16. NET INCOME			$90,850

Match the terms on the left to the statements on the right.

i	2.	asset	a.	shows what the business owns, what it owes, and how much it is worth
a	3.	balance sheet	b.	term used to describe a company that has the ability to pay all of its debts
d	4.	current assets	c.	a synonym for owner's equity or proprietorship
f	5.	equity	d.	can be converted into cash within a one-year business cycle
e	6.	fixed assets	e.	things the company owns that will be used for more than a year
g	7.	liabilities	f.	the amount left over when liabilities have been subtracted from assets
c	8.	net worth	g.	the financial obligations that a company has to creditors
h	9.	proprietorship	h.	a synonym for owner's equity or net worth
b	10.	solvent	i.	anything a business owns that has value
			j.	all of the money spent by a business
			k.	being sued for injuries

11. Assume that R.M. Markins has the following assets and liabilities and wishes to prepare a balance sheet in order to get a personal loan from a bank. As of February 28, Markins has $42.50 in cash and a checking account at the First National Bank with a balance of $369.50. He has lent money to J.C. Springer, who currently owes Markins a balance of $160.00.

In addition, Markins owes the Emporium Store $225.00 on an installment account, the Village Hardware Store $50.00 on a lawnmower, and Joe's Garage $37.50 for car repairs.

Markins can list all of his furniture, appliances, and other tangible assets as worth $1,800.00. He owes Ace Motors a balance of $160.00 on his car currently worth $895.00, and he has two life insurance policies with a cash surrender value of $800.00.

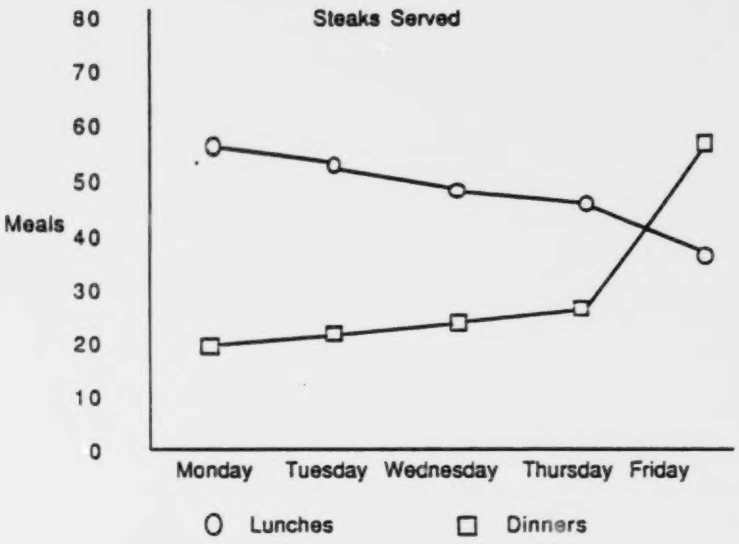
What would be R.M. Markins' net worth?

R.M. Markins
Balance Sheet
as of
February 28, 19 ___

ASSETS		LIABILITIES	
Cash on hand	$42.50	Accounts payable:	
Account 1st Nat'l Bank	$369.50	Emporium Store	$225.00
Accounts receivable:		Village Hardware	$50.00
J.C. Springer	$160.00	Joe's Garage	$37.50
Furniture, etc.	$1,800.00	Ace Motors	$160.00
Automobile	$895.00		
		Total Liabilities	$472.50
Life Insurance	$800.00	Net Worth	$3,594.50
Total Assets	$4,067.00	Total Liabilities and Worth	$4,067.00

$4,067 – 472.50 = $3,594.50

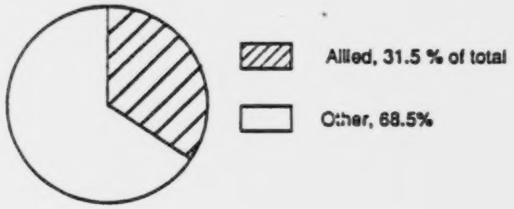
12. Interpret the information on the following graph. State three facts that you know by looking at the graph.



By looking at the graph above, I know that:

a. more steaks are bought at lunch during the first portion of the week
b. approximately the same number of steaks are bought during the dinner hour on Friday that are bought during lunch on Monday
c. there is a gradual decrease in the number of steaks bought at lunch as the week progresses with the number sharply dropping on Friday
d. there is a gradual increase in the number of steaks bought during the dinner hour during the week with a significant increase on Thursday and a sharp increase on Friday
e. employee scheduling would change radically as the week progresses

13. Goodall's buys merchandise from both Allied and Consolidated. Examine the following pie chart and determine what percentage of Goodall's merchandise was bought from Allied during the month charted. 31.5%



Pretest for Unit XI: Personal Mathematics

Assignments 33 and 34

For each of the following statements, indicate whether the statement is true or false by marking T for True or F for False.

1. F The "funny looking" numbers at the bottom of the check are there for the bank and mean nothing to you.
2. T It is "OK" to date checks on holidays and Sundays.
3. T A joint account has two or more signatures on file at the bank. Any one of these signatures can be used on a check to authorize payment from the account.
4. F A postdated check is a check containing a date that has already passed.
5. T One should never sign a check until the payee's name and the amount are completed.
6. F All banks have the same services available.
7. T You must be very careful to sign each check exactly as your signature appears on the signature card.
8. F Most banks will always honor your checks and will call or write to let you know that you need to deposit more money to cover them.
9. F A check remains good for up to 30 months after being written.
10. T If your name is spelled incorrectly on the front of the check, you should endorse it with the spelling that appears on the front, then with the correct spelling beneath.

Multiple choice. Choose the best answer by circling the letter to the left of that answer.

11. Which of the following is the least desirable endorsement to use on a check?
    - [✓ a.] a blank endorsement
    - b. a restrictive endorsement
    - c. a transfer endorsement

12. Reasons for stopping payment on a check include all of the following except:
    - a. discovery of fraud
    - b. checks are lost or stolen
    - [✓ c.] you get mad at the payee
    - d. payee does not fulfill agreement of payment

13. If you make a mistake when writing a check, you should
    - a. tear the check up
    - b. show that the check has been voided on your register or stub
    - c. start over with a new check
    - [✓ d.] all of the above are correct

14. When writing a check, the last thing the payor should do is
    - a. write name of payee
    - b. indicate what check is payment for
    - [✓ c.] sign his or her signature
    - d. write in the amount of check

15. "For deposit only" is an example of a
    - a. blank endorsement
    - [✓ b.] restrictive endorsement
    - c. corrective endorsement
    - d. transfer endorsement

16. All monies deposited in a checking account should be recorded on the
    [✓ a.] check register
    b. passbook
    c. signature card
    d. none of the above are correct

17. Information that is preprinted on the front of your checks when you receive them includes all but which of the following?
    a. check number
    b. name of your bank
    [✓ c.] town in which the payee lives
    d. number of days it normally takes the check to clear your bank

18. On the deposit slip, checks being deposited are
    a. listed as currency
    b. added together and entered under "checks"
    c. deposited in a different deposit than other monies
    [✓ d.] each listed separately

19. Which of the following is not something to consider when choosing a bank?
    a. convenience of location and hours
    b. whether the bank offers safety deposit boxes
    [✓ c.] how large the bank is
    d. whether a night deposit is available
    e. the bank's reputation within the community

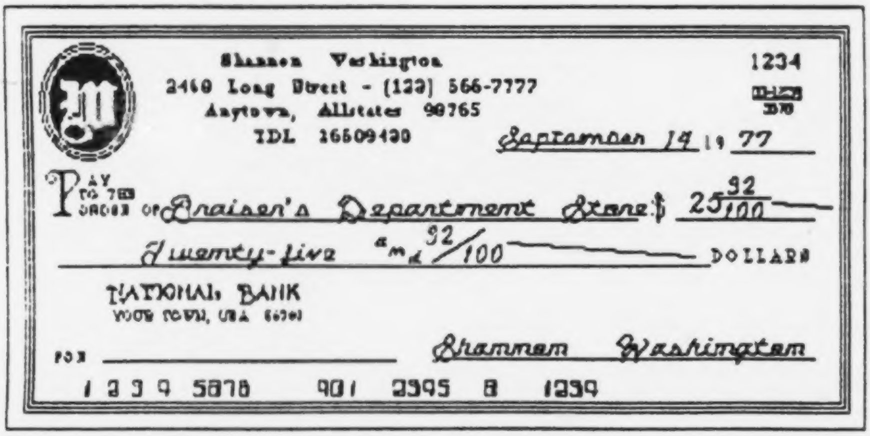
20. Name three advantages and three disadvantages of using a checking account.

    Advantages—safety in handling money, saves time, picture of where money goes, helps keep good records, helps establish a credit rating

    Disadvantages—requires one or two IDs, some businesses won't accept checks, cost is involved, possibility of overdrawing

21. Examine the check, written on September 4th, shown below. In which ways is it incorrectly written?

    Date is not current, too much space at left of written amount line, item it is for is not included, number line has too much blank space.



Shannon Washington
2460 Long Street - (123) 566-7777
Anytown, Allstates 98765
IDL 16609430

1234

September 14 19 77

PAY TO THE ORDER OF Braiser's Department Store $ 25 32/100

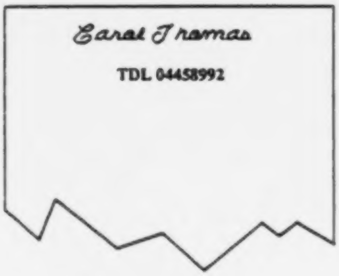
Twenty-five and 32/100 DOLLARS

NATIONAL BANK
YOUR TOWN, USA 66301

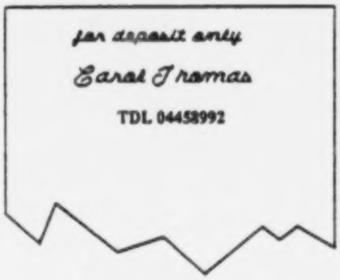
FOR ____________ Shannon Washington

1 2 3 9 5878 901 2395 8 1239

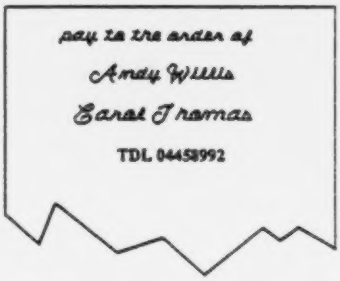
22. Identify the three types of endorsements shown below.


Sarah Thomas
TDL 04458992

Blank


for deposit only
Sarah Thomas
TDL 04458992

Restrictive


pay to the order of
Andy Willis
Sarah Thomas
TDL 04458992

Transfer

23. Explain why commercial finance company interest rates are usually higher than other lending institution rates.

They tend to take higher risk loans, and so suffer greater losses.

24. Explain why credit union interest rates are usually lower than other lending institution rates.

Credit unions have lower risks because members own the unions and they are formed with professions or companies.

25. Give an example of three kinds of collateral that might be used to secure a loan.

A car, motorcycle, furniture, etc.

26. You are considering signing a $6,000.00 car loan with a stated interest of 10% per year, borrowed for three years. The dollar value of the interest paid for the loan is $1,800.00. What would be the simple interest rate if the loan is repaid with one payment at the end of three years? 10% What would be the effective interest rate if it is repaid in equal monthly payments for three years? 19.5%

$$\text{Simple interest rate} = \frac{\$1{,}800}{\$6{,}000 \times 3} = 0.10 \text{ or } 10\%$$

$$\text{Effective rate} = \frac{2 \times 12 \times \$1{,}800}{(36 + 1) \times \$6{,}000} = 0.195 \text{ or } 19.5\%$$

Posttest for Unit XI: Personal Mathematics

Assignments 33 and 34

For each of the following statements, indicate whether the statement is true or false by marking T for True or F for False.

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2. T It is "OK" to date checks on holidays and Sundays.
3. T A joint account has two or more signatures on file at the bank. Any one of these signatures can be used on a check to authorize payment from the account.
4. F A postdated check is a check containing a date that has already passed.
5. T One should never sign a check until the payee's name and the amount are completed.
6. F All banks have the same services available.
7. T You must be very careful to sign each check exactly as your signature appears on the signature card.
8. F Most banks will always honor your checks and will call or write to let you know that you need to deposit more money to cover them.
9. F A check remains good for up to 30 months after being written.
10. T If your name is spelled incorrectly on the front of the check, you should endorse it with the spelling that appears on the front, then with the correct spelling beneath.

Multiple choice. Choose the best answer by circling the letter to the left of that answer.

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    - [✓ c.] town in which the payee lives
    - d. number of days it normally takes the check to clear your bank

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    - a. listed as currency
    - b. added together and entered under "checks"
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19. Which of the following is not something to consider when choosing a bank?
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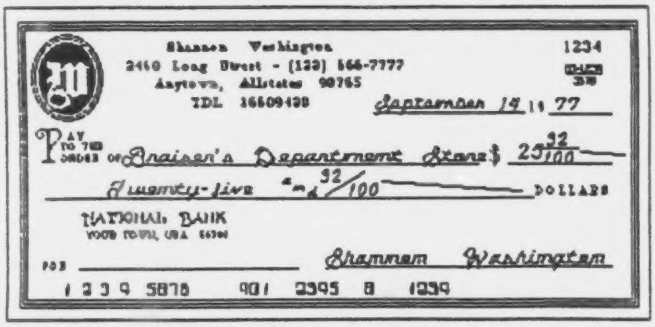


Shannon Washington
2460 Long Street - (123) 566-7777
Anytown, Allstates 90765
TDL 16609438

1234

September 14 19 77

PAY TO THE ORDER OF Braiser's Department Store $ 25 32/100

Twenty-five and 32/100 DOLLARS

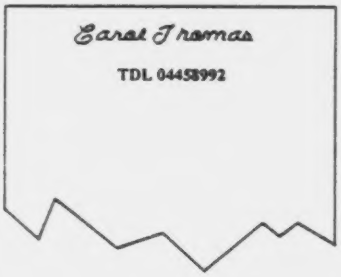
NATIONAL BANK
YOUR TOWN, USA 66300

FOR

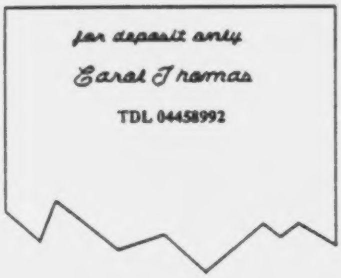
Shannon Washington

1 2 3 9 5878 901 2395 8 1239

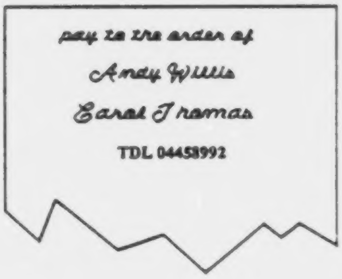
22. Identify the three types of endorsements shown below.



Blank



Restrictive



Transfer

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

e 23. Money deposited in the bank by one person and from which money is taken to pay the individual or organization named on the checks written by that person
d 24. Checks that have been deposited, cleared the bank and returned to you
a 25. A record sent to you by the bank reporting your balance, the checks cleared, deposits, and amount of fees
c 26. On file with the bank giving authority for payment from account.

a. bank statement
b. outstanding checks
c. signature card
d. cancelled checks
e. checking account

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

c 27. Usually a savings account
e 28. Checks payable on the signature of one person and one person only
a 29. Checks that you have written, but that have not cleared the bank
b 30. Be careful to sign signature card with the word *or*.

a. outstanding checks
b. joint account
c. passbook account
d. cancelled checks
e. individual account

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

d 31. Authorizes transfer of ownership of a check
c 32. When checks are lost of stolen, you should do this
a 33. Signature at the bottom of the check
b 34. Person to whom check is written

a. payor
b. payee
c. stop payment
d. endorsement
e. reconcile

Match the terms on the right to the definitions on the left by writing in the appropriate letters.

e 35. Requires two or more signatures on checks

a. overdrawn

__d__ 36. To make checkbook balance and statement balance come out even

__b__ 37. Can be spent in exchange for something of value

__a__ 38. To write checks for money you do not have in the bank

b. negotiable
c. joint account
d. reconcile
e. cosignature account

39. You are looking at a loan agreement that says the interest in dollars is $120.00 for a loan of $1,200.00 to be repaid in one payment at the end of the one-year period for which it is borrowed. What is the interest rate you will be paying? 10%

$$\frac{120}{1{,}200} = 0.10 \text{ or } 10\%$$

What would the effective rate be if you pay for the loan in equal monthly installments over the year? 18.5%

$$\text{Effective rate} = \frac{2 \times 12 \times \$120}{(13) \times \$1{,}200} = \frac{2{,}880}{15{,}600} = 0.185 \text{ or } 18.5\%$$

ASSIGNMENT 1

Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Checking for Understanding: Adding and Subtracting

Review your adding and subtracting skills using the following two common examples from marketing. Similar problems will be in the Guided Practice exercise for this assignment.

Hours worked, June	
June 4–10	12 hours
June 11–17	15 hours
June 18–24	14 hours
June 25–30	12 hours
	53 hours

Sales Slip with Discount	
Price	$100
Discount	–14
	$86.00

Checking for Understanding: Addition and Subtraction of Decimals

Write the following series of numbers first in a column, then in rows: $9.23, $6.00, $12.01, $0.11, $1.00.

$9.23
6.00
12.01
0.11
1.00

$9.23 $6.00 $12.01 $0.11 $1.00

Checking for Understanding: Finding a Percent Equivalent to a Fraction

What percent is the equivalent of 3/5? 60%

Divide: 3/5 = 3 divided by 5 = 0.60

Move the decimal point two places to the right: 0.60 = 60%

Checking for Understanding: Changing a Percent to a Decimal

60% = 0.60 or 60/100 = 0.60

Checking for Understanding: Finding Common Denominators

Find the smallest common denominators in these three situations:

1. 1/2 + 2/4 + 1/3 have a common denominator of _12_.
2. 1/3 + 1/5 + 1/9 have a common denominator of _45_.
3. 1/3 + 1/9 + 1/6 have a common denominator of _18_.

Checking for Understanding: Adding Mixed Numbers

1. Add 1/6 to 1/4. Answer _5/12_

   2/12 + 3/12 = 5/12

2. Add 4 3/4 to 8 3/8. Answer _13 1/8_

   4 6/8
   8 3/8
   12 9/8 = 12 + 1 1/8 = 13 1/8

Checking for Understanding: Subtracting Fractions

1. Subtract 2/3 from 9/12. Answer _1/12_

   9/12 = 9/12
   –2/3 = –8/12
   1/12

2. Subtract 12 5/6 from 15 9/12. Answer _2 11/12_

   15 9/12 = 14 21/12
   –12 10/12 = 12 10/12
   2 11/12

ASSIGNMENT 2

Multiplication and Division of Whole Numbers, Decimals, and Fractions

Checking for Understanding: Multiplication of Whole Numbers and Decimals

Do the following problems, placing the decimal point correctly where needed.
62 × 75 = 4,650
439 × 87 = 38,193
219.3 × 46.7 = 10,241.31
5.004 × 0.0706 = 0.3532824

Checking for Understanding: Division of Decimals, Placing the Decimal Point

Arrange the following problems so they are ready to work. Use arrows to show what you did.

40.46 divided by 0.07 = $0.07/\overline{40.46}$ becomes $7/\overline{4046.00}$

3.699 divided by 246.6 = $246.6/\overline{3.699}$ becomes $2466/\overline{36.99}$

Checking for Understanding: Multiplying and Dividing Using Fractions

Find the decimal equivalent for 1/5. Answer 0.20

1 divided by 5 = 0.20

Use that equivalent to multiply 6 1/5 by 2. Answer 12.40

6.20 × 2 = 12.40

Use that equivalent to divide 16 1/5 by 4 1/5. Answer 3.86

16.20 divided by 4.20 = 3.857 = 3.86

ASSIGNMENT 3

Weights and Measures

Checking for Understanding: Converting U.S. Units of Measurement

If a customer buys 2 quarts of strawberries, how many pints does she get? Answer 4 pints

2 quarts × 2 pints each = 4 pints

How many yards are in a mile? 1,760 yards

5,280 ft in a mile, divided by 3 ft in a yard = 1,760 yards in a mile

What does 1 rd equal? 16.5 feet

ASSIGNMENT 4

Simple Interest

Checking for Understanding: Using the Cancellation Method

1. Find the interest on \$140.00 at 5% for 40 days. Show your cancellations. Answer \$0.78

$$\frac{\$140 \times 0.05 \times \overset{1}{\cancel{40}}}{\underset{9}{\cancel{360}}} = 0.777 \text{ or } \$0.78 \text{ when rounded up}$$

2. Find the interest on \$360.00 at 12% for 84 days. Show your cancellations. Answer \$10.08

$$\frac{\$\overset{1}{\cancel{360}} \times 0.12 \times 84}{\underset{1}{\cancel{360}}} = \$10.08$$

Checking for Understanding: Using a Simple Interest Table

1. Using the interest table, and rounding up the answer, find the interest on \$480.00 for 25 days at 6%. Answer \$2.01 .

   \$480 × 0.00417 = \$2.0016 or \$2.01

2. Using the interest table, and rounding up the answer, find the interest on \$1,600.00 for 16 days at 3%. Answer \$2.13 .

   \$1,600 × 0.00133 = \$2.128 or \$2.13

ASSIGNMENT 5

Percentage, Base, and Rate

Checking for Understanding: Finding Percentage, Base, or Rate

1. Illustrate using an equation the relationship between percentage, base, and rate. Answer: Can be any one of these: P/R = B, B x R = P, or P/B = R.

$$\frac{\text{Percentage}}{\text{Rate}} = \text{Base}$$

$$\text{Base} \times \text{Rate} = \text{Percentage}$$

$$\frac{\text{Percentage}}{\text{Base}} = \text{Rate}$$

2. If the base is 1,500 and the rate is 60%, what is the percentage? Answer 900

   1,500 × 0.60 = 900

3. If the rate is 20% and the percentage is 230, what is the base? Answer 1,150

   230/0.20 = 1,150

4. If the percentage is 735 and the base is 2,100, what is the rate? Answer 0.35 or 35%

   735/2,100 = 0.35

ASSIGNMENT 6

Extensions

Checking for Understanding: Extensions

Complete the form below using the same approach used for the invoice in the example. With this purchase order the store purchased 3 12" band saws at $87.55 each, 3 saber saws at $41.50 each, and 84 scroll saw blades at $5.40 a dozen.

Quantity	Description	Price	Amount
3	12" Band saws	$ 87.55	$262.65
3	Saber saws	$ 41.50	$124,50
84	Scroll saw blades	$ 540dz	$ 37.80
			$424.95

Authorized by H.W.K.

ASSIGNMENT 7

Making Change

Checking for Understanding: Making Change after Electronic or Mechanical Calculations

For this example, assume your cash register has no half dollars—which often happens.

In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.24. The register shows change due is $10.76. Also write what you would say to the customer.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
1			3				1	

Say, "That is $9.24 out of $20.00. Your change is $10.76. 76 cents. $10.00. $10.76. Thank you."

Checking for Understanding: Making Change after Manual Calculations

In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $20.00 for a purchase of $9.84. Also write what you would say to the customer.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
1	1	1					1	

"You gave me a $20 bill. That's $9.84 out of $20. $9.85, $9.90, $10.00, and $10 is $20. Thank you."

ASSIGNMENT 8

Cash Register Operation

Checking for Understanding: Electronic and Computerized Cash Registers

Complete the following sentences by filling in the blanks.

1. Some highly developed electronic cash registers scan and read price tags.
2. The code on the price tag tells the register if a product is taxable.
3. Such a machine automatically records the sales tax.
4. Registers that scan and read price tags are very popular with businesses that sell both taxable and nontaxable products.
5. Scanners scan and read information through devices such as a hand-held wand or a scanner built into a counter.

Checking for Understanding: Counting a Cash Bank

Count your cash bank if the cash bank total is supposed to be $250.00. In the cash bank, there are the following amounts. After finding the total, indicate if the bank is over, short, or balanced.

Pennies	*175*	= 175 ×	.01	=	1.75	in pennies
Nickels	*100*	= 100 ×	.05	=	5.00	in nickels
Dimes	*10*	= 10 ×	.10	=	1.00	in dimes
Quarters	*35*	= 35 ×	.25	=	8.75	in quarters
Halves	*4*	= 4 ×	.50	=	2.00	in halves
$1s	*52*	= 52 ×	1.00	=	52.00	in ones
$5s	*14*	= 14 ×	5.00	=	70.00	in fives
$10s	*5*	= 5 ×	10.00	=	50.00	in tens
$20s	*3*	= 3 ×	20.00	=	60.00	in twenties
		Total		=	250.50	

Check one and tell the amount.

Are you over ✓ by $ .50?

short ______ by ______?

balanced ______ by ______?

Checking for Understanding: Closing Out a Cash Drawer

Complete these sentences by filling in the blanks.

To close out your cash drawer:

1. Take register readings of the cash received and the cash paid out.
2. Enter the readings on the proof of cash slip.
3. Count the money in the cash drawer. This should include your opening cash and money received less the money paid out.
4. Decide if you balance, or if you have a shortage or an overage.
5. Take a final register reading.

ASSIGNMENT 9

Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Checking for Understanding: Manually Completing a Sales Slip

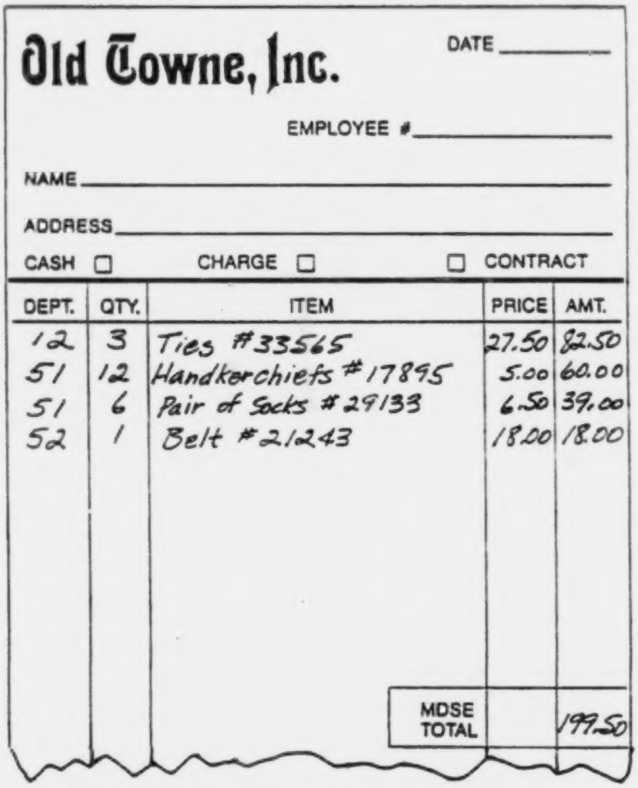
Complete the blank sales slip in figure 3. You can consult figure 2 to determine where each type of information goes. Do not figure tax or total price. This is the information to enter:

Employee #: (Your Social Security number)
Terms of the Transaction: Cash
Date: Today

Merchandise

Dept	*Qty*	*Item*	*Stock Number*	*Price*
12	3	ties	#33565	$27.50
51	12	handkerchiefs	#17895	5.00
51	6	pair of socks	#29123	6.50
52	1	belt	#21243	18.00

Merchandise Total



Old Towne, Inc.

DATE ____________

EMPLOYEE # ________________

NAME ________________________________

ADDRESS ________________________________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
12	3	Ties #33565	27.50	82.50
51	12	Handkerchiefs #17895	5.00	60.00
51	6	Pair of Socks #29133	6.50	39.00
52	1	Belt #21243	18.00	18.00
		MDSE TOTAL		199.50

Fig. 3. A sales slip for manual completion

Checking for Understanding: Bank Credit Cards

Fill in a standard credit sales slip for a bank credit card, shown below. Do not figure sales tax. Use the following information.

Date: Today
Authorization code: 80950
Clerk's initials: Your initials

Quantity	*Class*	*Description*	*Price*
1	42	bathrobe	$42.00
4	48	pairs of underwear	$4.50
2	511	nightgowns	$16.00

559196

Date	Currency Conversion Rate Amount	Auth. No.	Clerk
		80950	

JOHN Z. SMITH
201 EAST AVENUE
BARNS, TX 77777

Quan.	Class	Description	Price	Amount	
1	42	bathrobe	42.00	42	00
4	48	pairs underwear	4.50	18	00
2	511	nightgowns	16.00	32	00
			Sub Total	92	00
			Sales Tax		
			TOTAL		

CUSTOMER COPY

The issuer of the card identified on this item is authorized to pay the amount shown as total upon proper presentation. I promise to pay such total (together with any other charges due thereon) subject to and in accordance with the agreement governing the use of such card.

x John Z. Smith

Please retain this copy for your records

Thank you for using your bank card.

Checking for Understanding: Finding the Amount of Sales Tax

1. Using the equation, find the sales tax due on a merchandise total of $24.00 when the sales tax in the community is 0.08, or 8%. Answer $1.92

   $24.00 × 0.08 = $1.92

2. Using the sales tax schedule for 8%, find the tax on a $0.60 item. Answer $0.05

Checking for Understanding: Handling Refunds and Exchanges

Calculate the following types of merchandise returns, and tell what action to take. The sales tax is 8%, or 0.08.

1. A cash refund for a shirt that cost $15.99 + tax for a total of $17.27.
   Answer Refund

2. A charge credit for a shirt that cost $15.99 + tax for a total of $17.27.
   Answer Credit the customer's account.

3. An even exchange if the shirt cost $15.99 + tax for a total of $17.27.
   Answer No money changes hands.

4. An uneven exchange for an item that costs less. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $10.95 + tax for a total of $11.83.
   Answer, price difference $5.04 Answer, sales tax difference: $0.40
   Total amount refunded if cash paid $5.44
   If first purchase was charged, credit account for it and charge new item.

5. An uneven exchange for an item that costs more. The first shirt cost $15.99 + tax for a total of $17.27. It is exchanged for a shirt that costs $37.00 + tax for a total of $39.96.
   Answer, price difference $21.01 Answer, sales tax difference $1.68
   Answer, additional amount due if cash $22.69. If first item was charged, credit account for that amount and charge new item.

Checking for Understanding: Installment Sales Contracts

Do the calculations necessary to prepare an installment sales contract under the following conditions. The down payment will be $150.00. The trade-in allowance is $60.00.

1. (A) cash price	$1305.48
(B) maintenance contract	195.00
2. Sales tax, at 8%	120.04

1. (A) Cash Price	$1305.48
(B) Price of any accessories and/or services not included in (A)	$ 195.00
2. Sales Tax	$ 120.04
3. Total Cash price (1A, 1B, and 2)	$1620.52
4. Downpayment (A) Cash	$ 150.00
(B) Trade-in allowance	$ 60.00
5. Item 3–Item 4	$1410.52
6. Unpaid Balance of Cash Price (Amount Financed)	$1410.52
7. Finance Charge at 18%	$ 253.90
8. Deferred Payment Price (3 + 7)	$1874.42
9. Total of Payments (6 + 7)	$1664.42

ASSIGNMENT 10

Employee and Other Retail Discounts

Checking for Understanding: Employee and Business Discounts

1. Define *employee discount.*

   An employee discount is a discount given on merchandise purchased by the employee or a dependent relative.

2. Define *business discount.*

   A business discount is a discount given to a noncompetitive business or an organization.

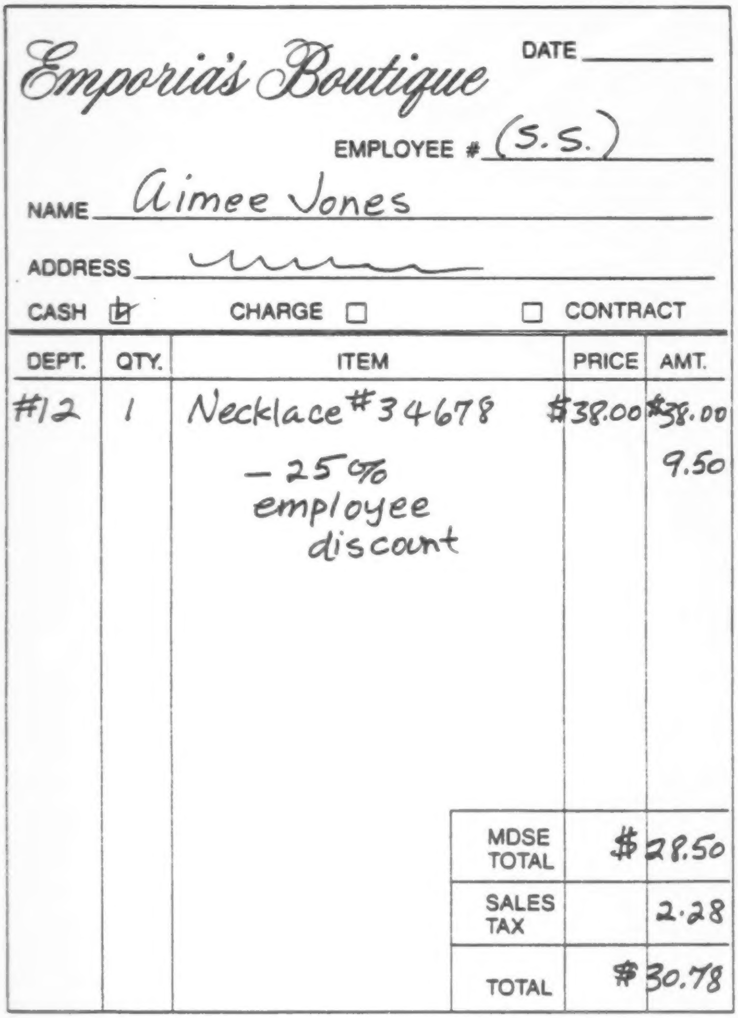
3. Briefly list the steps in handling an employee or business discount.

   Step 1: Identify employee or business.
   Step 2: Record employee information on sales slip.
   Step 3: Record all discountable items on the sales slip, and enter information in register.
   Step 4: After amount is tendered, obtain authorization.
   Step 5: Place merchandise in a bag with receipt stapled on the outside.

4. Complete a sales slip for the employee purchases that follow.

   Aimee Jones, an associate at Emporia's Boutique, wishes to purchase a necklace (Stock No. 34678) that retails for $38.00. She knows that she must identify herself in order to receive the 25% employee discount. Sales tax is 8%, or 0.08. The sale is for cash, and the department is No. 12.

   $38.00 × 0.25 = $9.50 discount. Merchandise total with discount is $28.50.
   $28.50 × 0.08 = $2.28. Total = $30.78.



Emporia's Boutique

DATE ________

EMPLOYEE # (S.S.)

NAME Aimee Jones

ADDRESS ________

CASH ☑ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
#12	1	Necklace #34678	$38.00	$38.00
		– 25% employee discount		9.50
		MDSE TOTAL		$28.50
		SALES TAX		2.28
		TOTAL		$30.78

ASSIGNMENT 11

Receiving and Marking Merchandise

Checking for Understanding: Receiving Forms and Checking in an Order

1. Tell the purposes of an invoice, packing slip, receiving form, and apron.

   An invoice tells what merchandise is being sent. A packing slip tells what should be in the order as received. A receiving form records what the checker confirms is in the order. An apron contains additional information needed by the store.

2. Explain how a packing slip and invoice are similar and how they differ.

   Packing slips and invoices are identical, but the packing slip has unit prices and $ amounts blacked out.

3. Why is an apron important to a buyer?

   The apron has information the buyer needs for doing her or his job.

4. Why is it important for the checker to initialize the invoice?

   If questions arise, the checker can be found quickly.

Checking for Understanding: Price Marking

1. Identify the kinds of information found on a price ticket or tag.

   Information includes date merchandise received, actual cost, source, retail price, descriptors, department codes, and stock numbers.

2. List five of the principles used in marking merchandise.

   (Any five) price easily distinguishable, sufficiently permanent yet removable, not injurious to merchandise, price readily available, neat, legible, not unattractive, easily revised, as few standard methods in one department as possible, fast, and inexpensive in labor and supplies.

ASSIGNMENT 12

Markdowns and Other Price Changes

Checking for Understanding: Calculating the $ Value of a % Markdown

Bridgett works at Long's Jewelry Store. A customer wanted to purchase the following items with the corresponding price reductions:

1 silver necklace $65.00 less 40%
1 silver bracelet $42.75 less 25%
1 pair of silver earrings $27.50 less 30%

Complete the sales slip below, and determine the amount the customer owes, before figuring the sales tax.

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
	1	silver necklace	65.00	
		less 40%	-26.00	
	1	silver bracelet	42.75	
		less 25%	-10.69	
	1	pair silver earrings	27.50	
		less 30%	-8.25	
			135.25	
			-44.94	
			90.31	
		MDSE TOTAL	$90	31

Checking for Understanding: Calculating the % Rate for a $ Markdown

The original price of a dress is $90.00. The sale price is $49.95. What is the amount of the markdown in dollars? _$40.05_ How much is the price reduction as a percentage of the original price? _45%_

$90.00 – $49.95 = $40.05
$40.05/$90.00 = 0.445 or 45%

Checking for Understanding: Recording Price Changes

Miller's Appliance is having a "One-Day Sale" and reducing the price on several washers and dryers. Use the following information to complete the price change form:

4 - 12 cycle washer #6309 from $550.00 to $349.99
9 - 8 cycle washer #7308 from $379.00 to $289.99
5 - electric dryer #7057 from $400.00 to $229.99

PRICE CHANGE FORM

Date________________199__ Number________________

☐ Additional Markup ☐ Markdown Cancellation ☐ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
12 cycle washer 6309	7	550	00	349	99	200	01	4	800	04
8 cycle washer 7308	7	379	00	289	99	89	01	9	801	09
electric dryer 7057	7	400	00	229	99	170	01	5	850	05
								Total	2451	18

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
[✓ 7.] Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ________________________________

Form ST-13

ASSIGNMENT 13

Taking Inventory

Checking for Understanding: Keeping Inventory

1. Describe two ways that inventory is counted and recorded.

   Inventory can be actually counted, which is a physical inventory. A book inventory can be made by keeping records of merchandise coming into and leaving the store.

2. Why is a physical inventory necessary?

   Book inventories may become inaccurate.

3. What are some of the facts a physical inventory gives to management?

   Actual number of items on hand by description, stock number, and department
   Actual dollar cost invested in inventory (and retail value) at the time inventory is taken
   Condition of items inventoried
   Whether there is old stock that should be rotated so that it is sold first
   Exact amount of shrinkage and where it occurs most often

ASSIGNMENT 14

Cash Discounts

Checking for Understanding: Effects of Terms on Payments Made

Give the explanation for each of the following notations of terms offered:

1. 2/10—a 2% cash discount is allowed if bill is paid within 10 days of the date on the invoice.
2. net 30—if discount not taken, net payment is due within 30 days of the date on the invoice.
3. 4/8 as of July 1—a 4% cash discount is allowed if bill paid within 8 days of July 1.
4. 3/10 ROG—a 3% cash discount is allowed if bill paid within 10 days of receipt of goods.
5. 2/10, x 60—a 2% discount is allowed if bill is paid within 70 days of invoice date.

ASSIGNMENT 16

Determining Length of Time When Calculating Discounts and Interest

Checking for Understanding: Using a Chart to Calculate Days

You should follow this procedure but do not need to provide an answer; one will be given. Count the number of days from February 9 of one year to January 22 of the next year. Begin in the horizontal column marked February, move to the first column headed January, and find the figure 334. That means there are 334 days from February 9 to January 9. Subtract 9 from 22 to get 13. Add 13 more days to 334 days, and get the figure 347. That means there are exactly 347 days from February 9 to January 22. If the year counted happens to be a leap year, simply add an additional day to any figure given in the chart, provided that the month of February is counted.

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

ASSIGNMENT 17

Computing Wages

Checking for Understanding: Hourly Wages

Do the following problem. Jean O'Conner is paid $3.40 an hour (regular hourly wage) for a forty-hour week. Her overtime (or time and a half) rate would be 1 1/2 × $3.40. The first week of September, Jean worked 43 hours. How much was Jean's gross pay (total pay) for that week? $151.30

40 hours at the regular rate of $3.40 (40 × $3.40)
and
3 hours overtime (1-1/2) rate – $3.40 × 1-1/2 or $3.40 × 1.5 = 5.10

40 hrs @ $3.40	=	$136.00	regular hourly earnings
3 hrs @ $5.10	=	$15.30	overtime rate earnings
		$151.30	gross pay (or total pay)

Checking for Understanding: Piece-Rate Wages

Solve the following problem. Stacy Mercer is employed on a piece-rate basis for preparing and stuffing credit statements for mailing at the rate of $0.85 per 100. She prepared 1,200 on Monday, 1,440 on Tuesday, 920 on Wednesday, 600 on Thursday, and 1,040 on Friday. What were her wages for that week? $44.20

1,200	Monday
1,440	Tuesday
920	Wednesday
600	Thursday
1,040	Friday
5,200	total for week

Since the unit of payment is 100 statements, divide the total number of statements by 100 to get the number of units for which she should be paid.

5,200 ÷ 100 = 52 and 52 × $0.85 = $44.20

Checking for Understanding: Time Cards

Solve the following problem. Marcia began working at 11 A.M. She stopped working at 7 P.M. How many hours did she work? 8

Afternoon leaving time (7) added to 12 (7+12) =19

Left at	19
Started at	– 11
hours worked	8

Checking for Understanding: Computing Wages from Time Cards

Solve the following problem. Wilson worked 3 3/4 hours on Monday, 2 1/4 hours on Thursday, and 4 1/2 hours on Friday. How many hours did Wilson work that week? 10.50 hours

3 3/4 = 3.75 hours
2 1/4 = 2.25
4 1/2 = 4.50
10.50

Technical Learning Concepts

Define the following terms.

gross pay—all pay added together
hourly wage—an established rate for each hour worked
military time—time determined by adding 12 to hours between noon and midnight
overtime (OT)—also called time and a half pay
piece-rate—a rate based on number of units produced or finished
rate—amount of pay for a unit of work—pieces, hours, or days worked
termination offense—the breaking of a company rule, for which you can be fired
wages—money paid to employees for labor or services performed on an hourly, daily, or piece-rate basis
net pay—earnings left after deductions are subtracted from gross pay

ASSIGNMENT 18

Salaries and Commissions

Checking for Understanding: Salary Plus Commission

Solve the following problem. John receives a salary of $700.00 per month. He is paid on a semimonthly plan with a 3% commission of net sales. During the first two weeks of May, his net sales were $2,100.00. During the last two weeks, he sold $2,400.00. What was his gross pay for the first half of May? $413.00

$700 / 2 = $350.00 semimonthly salary

$2,100 net sales for the first two weeks × commission rate of 3% = $63.00 commission for first two weeks

$350	semimonthly salary
+ 63	commission for first two weeks
$413	total or gross pay for first two weeks

Checking for Understanding: Quota to Be Met

Solve this problem. Dora Cutter's quota at Evermire's Department Store is $2,000.00 per month. Dora receives a salary of $920.00 per month with a 1% bonus on all sales over her quota. During March, Dora sold $6,000.00. What was Dora's total pay for the month of March? $1,040.00

$6,000	net sales
− 2,000	quota
$4,000	commissioned sales for March
× 0.03	commission rate
$120.00	bonus or commission
+ 920.00	base salary
$1,040.00	total or gross pay for March

Checking for Understanding: Straight Commission

Solve this problem. Nora Kelly is a salesperson at Juneuv Jewelry. Nora works on a straight commission rate of 6%. During the month of December, Nora sold $18,000.00. One customer returned a $450.00 ring, and another returned a $25.00 piece of silver flatware. What was Nora's gross pay for the month of December? $1,051.50

$18,000.00	gross sales
− 475.00	returned merchandise
$17,525.00	net sales
× 0.06	commission rate
$1,051.50	straight commission (total or gross pay)

Checking for Understanding: Draw

Solve this problem. Joe Thompson is a salesperson for a large automobile dealership. He earns 15 1/2% straight commission, plus a draw of $500.00 based on $13,000.00 monthly sales. During May, Joe sold $12,000.00. Since Joe is allowed a $500.00 draw if his sales fall below $13,000.00, is he allowed to draw during this month? Yes What will be his total or gross pay for the month? $2,360.00

$12,000	sales for month
× 0.155	commission rate
60000	
60000	
12000	
$1,860.00	straight commission for month

$1,860.00	straight commission for month
+ 500.00	draw
$2,360.00	total or gross pay

Checking for Understanding: Graduated Commission

Solve this problem. Max Headly receives a graduated commission in addition to his $500.00 base salary. He receives 5% on the first $500.00, 10% on the second $500.00, 15% on the third $500.00, and 20% on all sales over $1,500.00. His sales for the month of October were $2,300.00. What was Max's gross or total pay? $810.00

Base salary is	$500
First $500 × 0.05 is	$25
Second $500 × 0.10 is	$50
Third $500 × 0.15 is	$75
and $800 × 0.20 is	$160
Gross pay is	$810

Technical Learning Concepts

Define or explain each of the following terms.

commission—generally, a percentage of the net sales paid to the employee
draw—to borrow against future commissions
graduated commission—a commission which becomes greater as the net sales increase
monthly salary—a predetermined amount to be paid to an employee each month
net sales—gross or total sales less returns and allowances
quota—amount salesperson is expected to sell to be considered productive
quota bonus plan—commissions paid on sales above and beyond employee's quota
salary—a predetermined amount to be paid an employee each month or year
salary plus—situation in which percentage of net sales is paid in addition to salary
semimonthly salary—a salary divided in half and paid in two parts (twice each month)

ASSIGNMENT 19

Incentives and Payroll Deductions

Checking for Understanding: Bonuses

Solve the following problem. Janette Blatik receives 2% on all net sales above her quota of $22,000.00. Would this percentage be a commission or a bonus? commission

Tony Gonzales's sales were $700.00 over his quota. He sold more duplicating machines than any other salesperson at Images, for which he received $500.00. Did Tony receive a bonus or a commission? Bonus How much? $500.00

Checking for Understanding: Premium Money

Solve the following problem. Donald is paid an hourly rate of $4.00/hour. He receives a P.M. of $0.35 for each hour he works after 6:00 P.M. and any hours worked on Sunday. This week Donald worked from 4-8 P.M. on Monday, 3-7 P.M. on Wednesday, 2-6 P.M. on Friday, and from 8-11 A.M. on Sunday. What was Donald's gross pay?

	Regular hours	P.M. hours	Gross daily pay
Monday	2 @ $4.00	2 @ $4.35	$16.70
Wednesday	3 @ $4.00	1 @ $4.35	$16.35
Friday	4 @ $4.00	___ @ $4.35	$16.00
Sunday	___ @ $4.00	3 @ $4.35	$13.05
		Gross pay for the week	$62.10

Checking for Understanding: Fringe Benefits

Solve the following problem. The Kinning Company pays their part-time cashiers $5.50 per hour. The Basel Shop pays their part-time cashiers $5.25 per hour and furnishes all part-timers working 20 hours a week or more with health insurance and one week of paid vacation based on an average week's pay. Which store would you rather work for? Basel Shop Why? It has fringe benefits which give a greater advantage than an additional $0.25 an hour.

Checking for Understanding: Deductions

Solve the following problem. Using the two examples on voluntary and involuntary deductions, figure what Dan's net pay (take-home pay) would be for the week in question. $70.34

Involuntary		Voluntary	
$87.00	total pay	$76.34	pay after involuntary deductions
− 10.66	taxes, FICA	− 6.00	voluntary deductions
$76.34	after involuntary deductions	$70.34	take home pay

Checking for Understanding: Wage Computation

You may copy the ledger sheet or redraw it. Complete the payroll ledger sheet below, and compute the wages for employees listed. D. James is single, and E. Josha is married and filing jointly. Each is claiming only one exemption.

Employee	Status Exempt	M	T	W	T	F	S	Total Hours	Hourly Rate	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
James, D.	S-1	5	3	6	4	10	3	31	4.25	131.75	10.08	11.00	1.00	22.08	109.67
Josha, E.	M-1	8	0	9	9	8	3	37	6.95	257.15	19.68	23.00	19.80	62.48	194.67

Technical Learning Concepts

Define or explain the following terms.

bonus—a set amount of extra pay for additional sales or specific performance
filing status—tax status indicating whether a person is single, married filing separately, married filing a joint return, or single-head-of-household
F.I.C.A.—Federal Insurance Contributions Act, or Social Security taxes
fringe benefits—benefits received in addition to regular earnings
involuntary deductions—deductions which have to be taken out of gross pay
P.M.'s (premium money)—amounts paid as incentive for selling specific items, or working hard-to-staff hours
payroll deductions—amounts subtracted from gross pay to get net pay
payroll record—ledger used to keep track of time, rates paid, and other information
pay incentives—money given to encourage greater or specific effort
voluntary deductions—deductions over which the employee has control
withholding tax—income tax subtracted from the gross pay
exemptions—taxpayer, spouse, and dependents

ASSIGNMENT 20

Determining Productivity

Checking for Understanding: Setting Quotas

Solve the following problem. How much would Bill Blarneystone have to sell in order to justify a total weekly pay of $100.00 if his selling cost is to be 5%? $2,000.00

$2000 or $2,000
0.05/100.00

Checking for Understanding: Comparing Productivity

Solve this problem. Suppose that during the same week, part-time employee Susy Hoyt in the same department worked 24 hours at a rate of $4.00 per hour. She had sales of $1,254.00 and returns of $56.00. Use the same three steps to determine her productivity. What is her selling cost? 8% Is Susy more productive or less productive than Jill? more productive

Step 1 is to determine net sales by subtracting returns from total sales:

$1254 in sales
– 56 in returns
$1,198 in net sales

Step 2 is to determine Susy's total pay by multiplying hours by rate:

24 hours
× $4 per hour
$96 in total pay

Step 3 is to divide her total pay by her net sales:

0.08 or 8%
1198/96.00
9584
16

Checking for Understanding: Calculating Nonselling Productivity

Solve the following problem. Mary unwrapped, price-tagged, and delivered 120 dresses to the Misses department during one 6-hour shift, for which she got $4.00 an hour. How many units did she process for each $1.00? 5

Betty unwrapped, price-tagged, and delivered 65 dresses to Trends Boutique during her 4 hours on the job, at a rate of $4.00 an hour. How many units did she process for each $1.00? 4

Which nonselling person was the more productive? Mary

For Mary: 5 units per $1
24/120

For Betty: 4 units per $1
16/65
64

ASSIGNMENT 21

Stockturn

Checking for Understanding: Calculating Stock Turnover Rate (Stockturn)

Solve the following problem. In your boat shop you carry a line of life jackets. Your average stock of life jackets during the year was 10. During this same year, you sold 80 life jackets. What was the stockturn rate in units for life jackets that year? 8

8 was the stockturn rate, in units
10/80
80

Checking for Understanding: Estimating Stock Turnover

Solve the following problem. If the stock turnover rate on your life jackets was found to be 0.5 for an average month, what could you estimate the stockturn rate for the year to be? 6

0.5 × 12 = 6 turnovers a year

Checking for Understanding: Profits and Stockturn

The stock turnover rate is important in measuring profits in dollars and in setting prices for merchandise. Would you rather have a 40% profit margin with three stockturns a year, or a 25% profit margin with nine stockturns per year? 25% with 9 stockturns is better

Example A: If you have a retail value of stock of $1,000.00 with a 40% profit margin and a stockturn rate of 3 per year:

$1,000.00 × 0.40 (profit margin) = $400.00 gross profit every time stock is turned over
$400.00 × 3 (stockturns) = $1,200.00 gross profit for a year

Example B: If you have a retail value of stock of $1,000.00 with a 25% profit margin and a stockturn rate of 9 per year:

$1,000.00 × 0.25 (profit margin) = $250.00 gross profit every time stock is turned over
$250.00 × 9 (stockturns) = $2,250.00 gross profit for a year

Checking for Understanding: Finding Capital Turnover

Solve the following problem. What would the capital turnover be if the average stock at cost was $10,000.00 and the net sales for the year total $100,000.00? 10

$$\frac{\text{net sales}}{\text{average stock at cost}} = \frac{\$100,000}{\$10,000} = 10$$

Checking for Understanding: Determining Average Stock

Solve the following problem. If beginning inventory on January 1 was $30,000.00, on February 1 was $20,500.00, and on March 1 was $20,000.00, what was the average stock for that period? $23,500.00

January 1	$30,000		
February 1	20,500		
March 1	20,000		
	$70,500	and	23,500
			3/70,500
			6
			10
			9
			15
			15

Technical Learning Concepts

Define or explain the following terms.

average stock—a number found by taking the results of several inventories, adding them together, and dividing by the number of inventories

capital turnover—the number of times that capital has been invested in stock then returned and reinvested

stock turnover—the number of times a merchant's average stock of merchandise is sold and replaced by new merchandise within a specific period of time

stock turnover rate—another way of saying stock turnover

stockturn—the same as stock turnover

ASSIGNMENT 22

Stock-Sales Ratio

Checking for Understanding: Determining the Book Inventory

Solve this problem. Bookkeeping records indicate Our Store should have had $6,000.00 worth of widgets on hand at the beginning of January. During the month, widgets worth $4,000.00 more were received. Sales of widgets totaled $6,000.00 in January. What is the retail value of widgets Our Store should have on hand at the end of January? $4,000.00

$6,000	in widgets on hand BOM January	$10,000	in widgets total
$4,000	in widgets received in January	– 6,000	in widgets sold
$10,000	widgets total	$4,000	widgets EOM, January
		or $4,000	BOM inventory for February 1

Checking for Understanding: Finding a Stock-Sales Ratio

The inventory at the beginning of February was $75,000.00 (retail value). Sales for February were $62,000.00. What is the stock-sales ratio for February? 1.2

1.2
62000/75000.0
62000
130000
124000

Checking for Understanding: Using a Stock-Sales Ratio

The owner of a men's apparel store knows that a stock-to-sales ratio of 1.5 usually works for one class of garment. What would be the inventory required if sales of $12,000.00 are anticipated? $18,000.00

1.5 × $12,000 = $18,000

Technical Learning Concepts

Define or explain the following terms.

BOM—beginning of month, a statement of inventory at that particular time
book inventory—inventory which records show should be on hand
EOM—end of month, a statement of inventory at that particular time
physical inventory—the actual inventory, as determined by counting
stock-sales ratio—a comparison of stock on hand at a particular time to sales for a specified period

ASSIGNMENT 23

Open-to-Buy

Checking for Understanding: Determining Planned Purchases

Solve the following problem. A department in an apparel store expects to sell $20,000.00 during one month. At the end of the month, the buyer wants to have $40,000.00 in the ending inventory. Expected reductions are $3,000.00. The beginning inventory is $45,000.00. What should planned purchases be? $18,000.00

$20,000	sales goal
40,000	anticipated ending inventory
+ 3,000	reductions
$63,000	total merchandise needed
− 45,000	beginning inventory
$18,000	planned purchases

Checking for Understanding: Open-to-Buy

Solve the following problem. What is the open-to-buy April 1 if planned purchases are $150,000.00 and the merchandise already received or on order on that date totals $75,000.00? $75,000.00

$150,000	planned purchases
− 75,000	received or on order
$75,000	open-to-buy

Checking for Understanding: The OTB Procedure

Solve the following problem. Annette's boutique plans to sell $125,000.00 in the period from July-December. The buyer hopes to have $30,000.00 ending inventory to start the next period. Reductions are $2,000.00. The beginning inventory on July 1 was $50,000.00. On July 15th another $5,000.00 worth of merchandise had been received and $20,000.00 more was on order. At this point, what is the open-to-buy for the period? $82,000.00

$125,000	sales goal
30,000	ending inventory
+ 2,000	reductions
$157,000	inventory needed to do business for period
− 50,000	beginning inventory
$107,000	planned purchases
− 25,000	received or on order since first of period
$82,000	open to buy on July 15

Technical Learning Concepts

Define or explain the following terms.

open-to-buy—the amount of money still available for purchasing on a specific date in a planning period *planned purchases*—the amount of merchandise that will have to be purchased to meet sales goals and anticipated ending inventory for a planning period

ASSIGNMENT 24

The Merchandise Plan

Checking for Understanding: Developing a Merchandising Plan

In the example above, you saw how calculations were used to finish that part of the merchandising plan dealing with January. Using the information in the plan below, complete the calculations for February last year and February this year. For March, do only those calculations related to finding purchases for February.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	**$40,000**	**$35,000**	$25,000	$100,000
SALES	2. Planned + 10%	**$44,000**	**$38,500**	$27,500	
	3. Actual				
	B				
RETAIL	4. Last year	$80,000	$70,000	$50,000	—
STOCK	5. Planned	**$88,000**	**$77,000**	$55,000	
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%	$2,000	$1,750	$1,250	
TIONS	8. Planned 5%	**$2,200**	$1,925	$1,375	
% sales	9. Actual				
	D				
PUR-	10. Last year	$32,000	$16,750		
CHASES	11. Planned	**$35,200**	$18,425		
IN $	12. Actual				

Checking for Understanding: Calculating Planned Purchases

Solve the following problem. A merchant plans to sell $65,000.00 in February. She wants to have $120,000.00 in inventory at the beginning of March. Planned reductions are $1,950.00. She will have $130,000.00 in inventory at the beginning of February. What should her planned purchases be? $56,950.00

$65,000	sales goal
120,000	ending inventory
1950	reductions
$186,950	merchandise needed
– 130,000	beginning inventory
$56,950	planned purchases

Checking for Understanding: Calculating Markup for a Department or Store

Solve this problem. Planned sales for a department for a six-month period are $50,000.00. The same merchandise will cost $20,000.00. What is the planned markup for the entire department? 60%

$$\frac{\$50{,}000 - \$20{,}000}{\$50{,}000} = \frac{\$30{,}000}{\$50{,}000} = 0.60 \text{ or } 60\%$$

Technical Learning Concepts

Define the following terms.

assortment planning—breaking down the money to be spent into categories
inventory analysis—a close look at present stocks to determine their adequacy in meeting the needs, wants, and demands expressed in the sales analysis
4-5-4 calendar—a way of making certain each month in a 13-week quarter begins with a Sunday and ends with a Saturday
primary research—research conducted by the store or person who will use it
marketing mix—a balance of product or service, price, place, and promotional activity
markdowns—reductions in price from original prices for items
markup—the markup is the amount that is added to the cost of the merchandise to determine the retail price
merchandise plan—a plan that aids the buyer in deciding how much to buy at one time
sales analysis—an analysis of past sales to determine customer needs, wants, and buying habits
secondary research—facts gathered by someone other than person using them at the time
shrinkage—loss due to employee theft, pilferage, or bookkeeping errors
employee and special discounts—additional reductions in the retail value of inventory

ASSIGNMENT 25

Purchase Orders

Checking for Understanding: Information on Purchase Orders

Answer the following questions.

1. What part of the purchase order will help ensure the merchandise gets where it should be going?

   the "ship to" address

2. Which information helps make certain the merchant gets what is being ordered?

   quantity and description information

3. What information relates to how and when the order is sent?

   date wanted and ship via

4. Where is information affecting payment found?

   in the "terms" box

ASSIGNMENT 26

Pricing Structures

Checking for Understanding: Fixed Versus Variable Pricing

You can rewrite the statements by adding sentences that tell if the example is for fixed or variable pricing.

1. Juan Vasquez needs five cars for use in his business. The salesperson offers a quantity discount if Juan buys all five cars from his company. This is an example of variable pricing.
2. If Jane buys the set of china before leaving the store, she will receive a 20% discount. This is an example of variable pricing.
3. T-shirts at Anders Sporting Goods are priced at $6.95 each. Mr. Turner buys 25 T-shirts for the club. The club pays $173.75 for the shirts. This is an example of fixed pricing.

Checking for Understanding: Using a Base Price

Answer the question. The base price of an item increases 10%. By what percent would the retailer increase his or her retail price? 10%

Checking for Understanding: Keystone Pricing

Solve the problem. Compute the wholesale price of each of the following items based on the information given.

1. The Jewel Cache takes a special order from Cindy for a birthstone ring. The ring is listed in the Macco catalog for $327.00 retail. The merchandise prices in the catalog are double keystoned. How much will the ring cost the Jewel Cache? $163.50
2. The Sofa Box is special ordering a sofa for Mrs. Casterini. The sofa is listed in the catalog at $1,200.00, and the prices are triple keystoned. How much will the Sofa Box pay for the sofa? $400.00

Checking for Understanding: Following a Pricing Policy

Figure each of the following prices to the nearest $0.98 of each retail dollar:

$1.98 $1.86
$10.98 $10.62

Technical Learning Concepts

Define or explain the terms.

base price—a price regulated by a pricing structure that is uniform through the industry, nationally, or internationally
fixed pricing—pricing in which a one-price-for-everybody policy exists
keystoned pricing—pricing in which the wholesale price is increased by a certain factor to arrive at the retail price

odd cents pricing—marking an item to the nearest appointed selling price in a prescribed price line

price lining—a pricing policy in which merchandise is placed in various price groups, such as $99.95, $159.95, and $199.95

variable pricing—pricing in which the price can change based on negotiation between customer and seller, or by variations from a base price

ASSIGNMENT 27

Markup

Checking for Understanding: Computing Retail Price from Cost and Markup %

Solve the following problem. A travel alarm cost the merchant \$6.00. By examining past records and from past experience, the merchant estimates that a 45% markup will be needed to cover expenses and have money left over for a profit. What will the markup be in dollars? \$4.90 What will the retail price of the travel alarm be? \$10.90

$$\frac{\$6.00}{100\% \;-\; 45\%} = \frac{\$6.00}{0.55} = \begin{array}{r} \underline{10.90} \\ 0.55/6.0000 \\ \underline{55} \\ 500 \\ \underline{495} \\ 50 \end{array} = \$10.90 \text{ retail price}$$

and \$10.90 – \$6.00 = \$4.90 markup in dollars.

Checking for Understanding: Computing Markup and Cost Percentage from Retail Price

Solve the following problem. The retail price of a thermos at Zetler's is \$29.95. The thermos cost Zetler's \$17.37. What was the markup for the thermos in dollars? \$12.58 What was the markup percentage of the thermos? 42% What was the cost percentage of the thermos? 58%

\$29.95	retail price
– 17.37	cost
\$12.58	markup in dollars

$$\frac{\text{markup (dollars)}}{\text{retail price (dollars)}} = \frac{12.58}{29.95} = \begin{array}{r} \underline{0.42} \\ 2995/1258.00 \\ \underline{11980} \\ 6000 \\ 5990 \end{array} \quad \underline{\text{or } 42\%}$$

Technical Learning Concepts

Define or explain these terms.

cost—what the merchant pays the vendor for an item
expenses—store expenditures not associated with buying specific merchandise
markup—amount added to cost to cover gross profit and overhead (expenses)
markon—another term for markup
overhead—the expenses of running the business
retail price—the amount set for the customer to pay for the item

ASSIGNMENT 28

Margins and Profits

Checking for Understanding: Determining Margin in Dollars

Sungear also carries a line of beach towels. Their most popular towel sells for \$22.95. The towel costs them \$13.00. How much is Sungear's margin on the towel? \$9.95

\$22.95	selling or retail price
– 13.00	cost of towel
\$9.95	margin

Checking for Understanding: Determining Margin in Percentage

In the problem above, the beach towel sells for \$22.95 (100%) retail price. The cost is \$13.00. What percentage of the retail price would the \$13.00 cost be? 57%

$$\frac{13.00}{22.95} = 0.566 \text{ or } 57\%$$

Checking for Understanding: Determining Selling Price when Margin Percentage and Cost Are Given

Suppose a store determines that its expenses are 28% and it wants a profit of 8%. What would the selling price have to be for an item that costs \$15.00? \$23.44

28% + 8% = 36%, the required margin

$$\frac{\$15.00}{100\% - 36\%} = \frac{15.00}{64\%} = \frac{15.00}{0.64} = \$23.437 \text{ or } \$23.44$$

Checking for Understanding: Determining Selling Price When Cost in Dollars and a Cost Percentage Are Specified

The store management says the cost of items must be 58% of selling price. What will be the selling price if an item costs \$10.00? \$17.24

$$\frac{\$10}{58\%} = \frac{\$10}{0.58} = \$17.24$$

Technical Learning Concepts

Define the following terms.

selling price—final price at which merchandise is to be sold
gross margin—the difference between selling price and cost of the merchandise
operating expenses—all the expenditures that would be required to run a business, other than cost of merchandise
net profit—what is left after operating expenses are subtracted from gross margin

ASSIGNMENT 29

Break-Even Point

Checking for Understanding: Determining the Break-Even Point

Donnell's Doll Shop has fixed expenses of $900.00 per month, and variable expenses and costs that average $10.00 per doll. How many dolls does Donnell's have to sell at an average retail price of $30.00 per doll before she begins to make a profit? 45

If she sells each doll at $30.00 and $10.00 of each doll is variable expense, then $20.00 is left to pay fixed expenses.

Fixed expenses of $900.00 divided by $20.00 can be paid by selling 45 dolls. Donnell's break-even point is at 45 dolls. Dolls sold in excess of 45 will begin to make a profit for the shop.

Checking for Understanding: Reading a Break-Even Chart

Using the chart in figure 2, estimate the profit that would be made if 110 units are sold. Check your results mathematically. $1,200.00

A line drawn upward from 110 units intersects the **total revenue** and **total costs lines** to show a profit of approximately $1,100.00 to $1,400.00.

110 units × $80 gives a total revenue of $8,800
Total costs at this point would be
$3,200 (fixed) and $4,400 (variable), or $7,600
Profit would be $1,200

Technical Learning Concepts

Define these terms.

break-even point—the point at which both fixed and variable costs have been paid and profits can begin to be earned
fixed costs (or *expenses*)—costs (or expenses) that do not vary with the number of units sold
variable costs (or *expenses*)—costs (or expenses) which vary directly with the number of units sold

ASSIGNMENT 30

Income Statement

Checking for Understanding: Preparing an Income Statement

Blenco Foods
Income Statement
For the Year Ending December 31, 19__

Operating Income			
1. Sales	$195,000		
2. Less returns, discounts, allowances	$8,000		
3. = Net sales		$187,000	
4. Less cost of goods sold		$110,000	
5. = GROSS MARGIN		$77,000	
Operating Expenses			
6. Employee compensations	$32,000		
7. Rent	$13,000		
8. Utilities	$2,400		
9. Advertising expense	$3,500		
10. Property upkeep	$2,500		
11. = TOTAL OPERATING EXPENSE		– $53,400	
12. NET OPERATING INCOME			$23,600
Other Income			
13. Total lease income		$10,000	
14. Vending machine income		$4,000	
15. = TOTAL OTHER INCOME			$14,000
16. NET INCOME			$37,600

ASSIGNMENT 31

Balance Sheets

Checking for Understanding: Calculating Net Worth and Liabilities

If Corona's fixed assets are $60,000.00, their current assets are $40,000.00, and their liabilities are $70,000.00, what is the net worth (equity) of the company? $30,000.00

Assets – liabilities = net worth
$100,000 – 70,000 = $30,000

Lexington's assets are $200,000.00 and the owner's equity is $75,000.00. How much does Lexington owe? $125,000.00

Assets – equity = liabilities

$200,000 – 75,000 = $125,000

Technical Learning Concepts

Define these terms.

assets—what is owned
balance sheet—a form that shows what the business owns, what it owes, and what it is worth
current assets—assets that can be converted into cash within a one-year business cycle
equity—assets minus liabilities
fixed assets—assets that will be used for more than a year
liabilities—financial obligations of a business to its creditors
net worth—synonym for *equity*
proprietorship—synonym for *equity*
solvent—a state in which a business is able to pay all of its debts

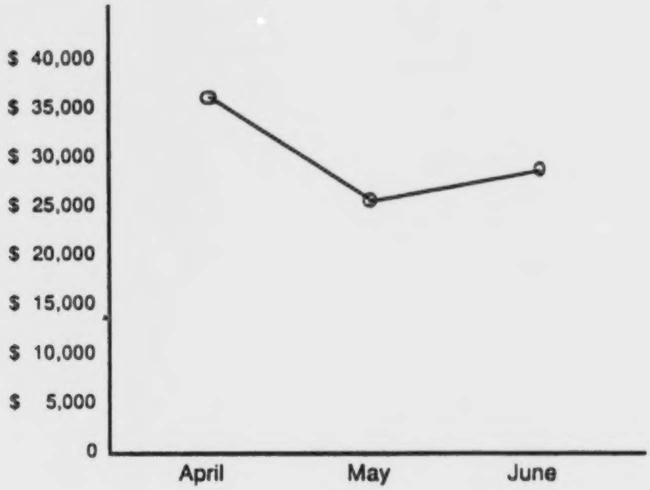
ASSIGNMENT 32

Preparing and Using Graphs and Charts

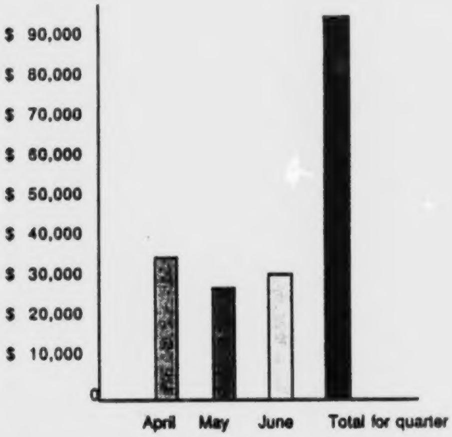
Checking for Understanding: Developing Graphs and Charts

The easiest way to develop the graphs and charts would be to use graph paper. Such a graph can be drawn with 1/4-inch squares.

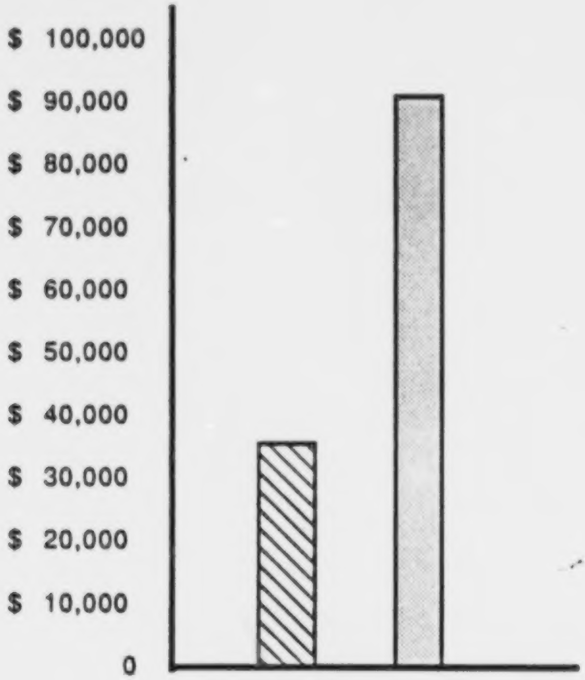
1. The Visimarketing Corporation is a contract company that builds visual displays for several stores in the state. Their gross sales for the first three months of the year are shown below. Plot a graph showing the trend in Visimarketing's gross sales for the three-month period. The figures are April, $36,000.00; May, $26,000.00; and June, $29,000.00.

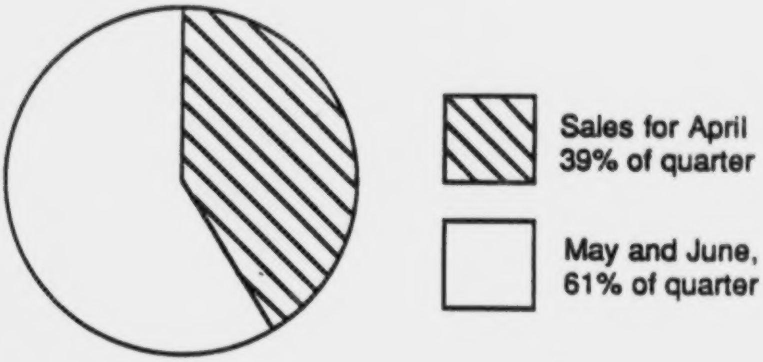


2. Draw a vertical bar chart comparing each month's sales with the three-month sales total.



3. Draw a bar chart and a pie chart showing how much the sales for April were in comparison with the overall sales for the three-month period.





Technical Learning Concepts

Define these terms.

visualization—a way of presenting data in picture form, or as a picture or illustration
chart—an illustration that compares two things, or shows the relationship of a part to the whole
bar chart—a chart made of independent, straight lines used to plot or show data
graph—a visual way of plotting two or more variables to show trends or the effects of one thing on another
pie chart—a circular chart somewhat like a piece of pie, in which each piece can be compared to others and to the whole

ASSIGNMENT 33

Checking Accounts

Checking for Understanding: Checking Accounts

(1) List five advantages of using a checking account.

1. It is a safer way of handling money.
2. It saves time.
3. It gives you an overall picture of where your money goes.
4. It assists in keeping good records.
5. It is helpful in establishing a credit rating.

(2) List four disadvantages of using a checking account.

1. You must have an ID (often two).
2. Some businesses do not accept checks as payment.
3. A cost is involved.
4. Overdrawing is a possibility.

Checking for Understanding: Choosing a Bank

List six factors to consider when choosing a bank.

Factors are services, fees, accounts available, membership in FDIC, local reputation, and convenience.

Checking for Understanding: Terms or Types of Accounts

List three types of accounts, based on signatures, and explain the differences.

1. Individual—only one person can write a check on the account.
2. Joint—any person of two or more people registered with the bank can write checks on the account.
3. Cosignature—every check must contain two or more signatures for the check to be valid.

Checking for Understanding: Opening an Account

Fill out the following signature card using the signature that you plan to use throughout the rest of this assignment:

Do not write above this line.	Account Number
Terms of Account	**Signatures Authorized on This Account**
Single name account	1.____________________________________

Two or more name account, joint tenancy with right of survivorship

1.____

2.____

Two or more name account, not joint tenancy with right of survivorship

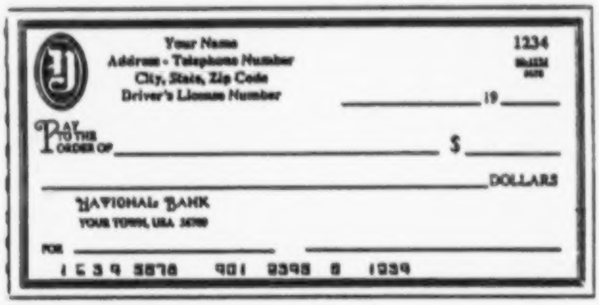
1.____

2.____

1. ADDRESS		2. ADDRESS	
CITY/ZIP	HOME PHONE	CITY/ZIP	HOME PHONE
EMPLOYER		EMPLOYER	
CITY	PHONE	CITY	PHONE
BIRTH DATE		BIRTH DATE	
SOCIAL SECURITY NUMBER		SOCIAL SECURITY NUMBER	
MOTHER'S MAIDEN NAME		MOTHER'S MAIDEN NAME	

Checking for Understanding: Using a Checking Account

Write three checks using your own information and identification.



Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234

________________19______

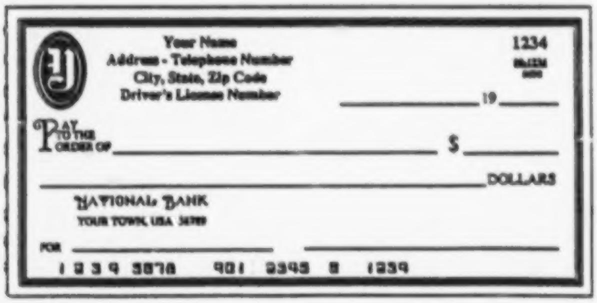
PAY TO THE ORDER OF____________________________ $________

____DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR __________________ ____________________

1 2 3 9 5678 901 2345 6 1239



Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number

1234

________________19______

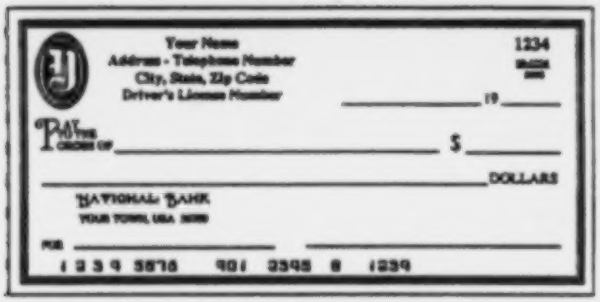
PAY TO THE ORDER OF____________________________ $________

____DOLLARS

NATIONAL BANK
YOUR TOWN, USA 56789

FOR __________________ ____________________

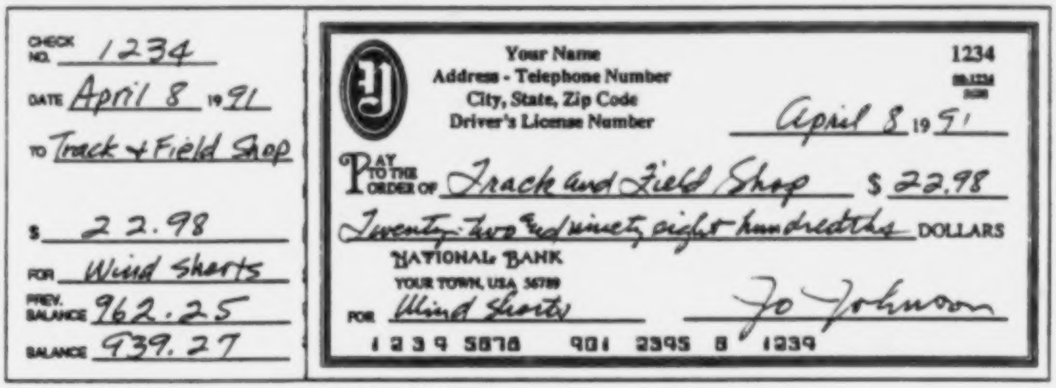
1 2 3 9 5678 901 2345 6 1239



Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number
1234
19
PAY TO THE ORDER OF $
DOLLARS
NATIONAL BANK
YOUR TOWN, USA 56789
FOR
1239 5878 901 2395 8 1239

Checking for Understanding: Keeping Up with How Much You Spend

On April 6, 1991, Jo bought a pair of wind shorts from the Track and Field Shop. The shorts cost $22.98. On the blank check below, demonstrate the way Jo should have written the check, then subtract the amount from the check register to find the new balance.

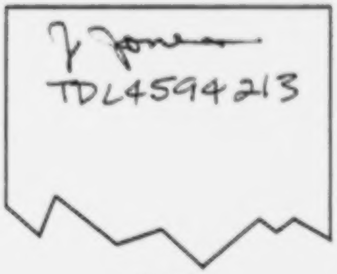


CHECK NO. 1234
DATE April 8 19 91
TO Track + Field Shop
$ 22.98
FOR Wind Shorts
PREV. BALANCE 962.25
BALANCE 939.27

Your Name
Address - Telephone Number
City, State, Zip Code
Driver's License Number
1234
April 8 19 91
PAY TO THE ORDER OF Track and Field Shop $ 22.98
Twenty-two and ninety eight hundredths DOLLARS
NATIONAL BANK
YOUR TOWN, USA 56789
FOR Wind Shorts
Jo Johnson
1239 5878 901 2395 8 1239

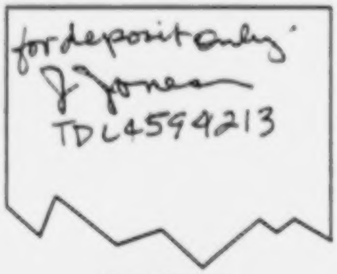
Checking for Understanding: Endorsements

On the back sides of the checks below, write examples of a blank endorsement, a restrictive endorsement, a corrective endorsement, and a transfer endorsement.



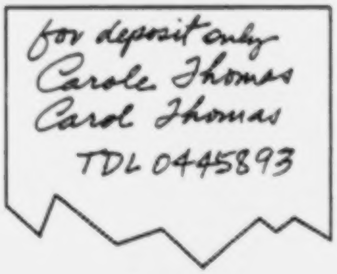
J Jones
TDL4594213

Blank



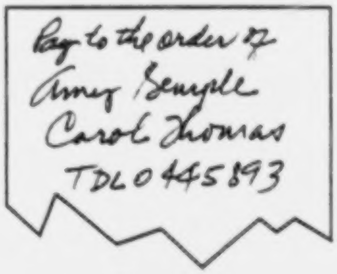
for deposit only
J Jones
TDL4594213

Restrictive



for deposit only
Carole Thomas
Carol Thomas
TDL 0445893

Corrective



Pay to the order of
Amy Semple
Carol Thomas
TDL 0445893

Transfer

Technical Learning Concepts

Define these terms.

bank statement—record of all business transacted during a period
cancelled checks—checks which have been processed through an account
check—written order to bank to pay a designated amount of money
checking account—money deposited in a bank from which payment is made
cosignature account—account requiring at least two signatures on each check
endorsement—payee's signature on back of check
FDIC—Federal Deposit Insurance Corporation, which insures accounts in banks
ID—identification that tells who you are
individual account—account with one person authorized to write checks
joint account—account with two persons authorized to write checks individually
negotiable—capable of being exchanged for cash
outstanding checks—checks that have not yet gone through the account
overdrawn—condition in which checks written exceed money in account
passbook account—account requiring use of passbook to make transactions
payee—person receiving money from check
payor—person paying money from check
postdated check—check with date later than day on which is written
reconcile—to make certain the bank statement and check register agree and are correct
service charge—amount paid for processing checks
signature card—card showing authorized signature(s) for account
stop payment—instruction not to pay a specific check

ASSIGNMENT 34

Loan Applications

Checking for Understanding: Determining Effective Interest Rate

Michael has borrowed \$300.00 for 12 months. He will make one payment at the end of the year, and the interest paid at that time will be \$36.00 total. What equation is used? What is the actual interest rate he is paying? 12%

$$\textbf{Rate as a decimal fraction} = \frac{\text{interest paid in \$}}{\text{amount of principal} \times \text{years borrowed}}$$

$$\frac{\$36}{\$300 \times 1} = 0.12 \text{ or } 12\%$$

Suppose Michael had borrowed \$300.00 for 12 months, to be repaid in monthly installments. His total interest paid for the year is still \$36.00. What equation should be used? What percent is he actually paying? 22%

$$\text{effective rate} = \frac{2 \times \text{annual number of payments} \times \text{interest in \$}}{(\text{total number of payments} + 1) \times \text{principal in \$}}$$

$$\frac{2 \times 12 \times \$36}{13 \times \$300} = \frac{\$864}{\$3{,}900} = 0.22 \text{ or } 22\% \text{ is what he is actually paying, the effective rate}$$

Technical Learning Concepts

Define these terms.

APR, or *annual percentage rate*—a statement of what percentage is actually being charged for an installment loan, taking into account timing of loan repayment
collateral—an item of value pledged against repaying a loan
commercial full-service banks—banks that offer all the services of a bank
credit unions—financial institutions owned by their customers
effective interest rate—actual interest rate after taking into account how payments reduce the loan during the loan period
finance companies—independent commercial financial institutions that deal in higher risk loans
installment loan—loan repaid on a regular basis during the term of the loan
interest—money paid for the privilege of using someone else's money
principal—actual amount of money borrowed
savings and loan associations—institutions that specialize in real estate loans, or mortgages
secured loan—loan for which collateral has been pledged
simple interest rate—rate that would apply if all the money were used for the entire term of the loan
stated interest rate—interest which the lender says is being charged
unsecured loan—loan for which no collateral has been pledged

Guided Practice on Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Unit I: Assignment 1

1. Arrange these numbers in columns, then add them: $22.50, $13.00, $12.66, and $19.44.

$22.50
13.00
12.66
19.44
$67.60

2. Arrange these numbers in columns, then add them: $4.00, $5.00, $6.00, $18.75, $0.15, and $19.99.

$4.00
5.00
6.00
18.75
0.15
19.99
$53.89

Add the following columns of numbers:

3.	4.	5.	6.	7.
66	39	22	45	32
18	19	44	55	99
66	12	99	33	66
12	44	22	22	22
162	114	187	155	219

Subtract the following columns:

8.	9.	10.
22	99.12	55.00
− 11	− 18.33	− 16.33
11	80.79	38.67

Add the following fractions:

11.	12.	13.
6 3/4	8 9/10	12 2/4
+ 4 1/2	+ 6 8/10	+ 2 1/2
11 1/4	15 7/10	15

Subtract the following fractions:

14.	15.	16.
9 3/4	12 2/3	9 1/6
− 8 1/4	− 11 1/3	− 7 1/3
1 2/4	1 1/3	1 5/6

Give the decimal and fraction equivalents for these percents:

17. 50 percent = 0.50 = 1/2
18. 100 percent = 1.00 = 1/1
19. 20 percent = 0.20 = 1/5

Independent Practice on Addition and Subtraction of Whole Numbers, Decimals, and Fractions

Unit I: Assignment 1

1. Arrange these numbers in columns, then add them: $38.50, $12.00, $15.69, and $18.76.

$38.50
12.00
15.69
18.76
$84.95

2. Arrange these numbers in columns, then add them: $5.00, $9.00, $8.00, $12.75, $0.12, and $22.89.

$5.00
9.00
8.00
12.75
0.12
22.89
$57.76

Add the following columns of numbers:

3.
67
22
12
19
120

4.
49
12
22
45
128

5.
33
33
44
26
136

6.
65
111
44
18
238

7.
31
89
77
17
214

8.
324
188
999
657
2,168

9.
667
585
678
858
2,788

10.
173
980
986
199
2,338

11.
3657
4568
5672
8299
22,196

12.
8890
6788
7898
9012
32,588

13.
8199
9912
7734
7723
33,568

Subtract the following columns:

14. 222
− 143
79

15. 199.12
− 20.33
178.79

16. 655.00
− 514.33
140.67

Add the following fractions:

17. 19 1/3
22 2/3
18 1/3
60 1/3

18. 6 3/4
12 1/3
11 2/3
30 9/12

19. 4 1/2
6 1/2
6 2/3
17 4/6

Subtract the following fractions:

20. 9 3/4
− 7 1/4
2 2/4

21. 12 2/3
− 10 1/3
2 1/3

22. 9 1/6
6 1/3
2 5/6

Give the decimal and fraction equivalents for these percents:

23. 25 percent = 0.25 = 1/4
24. 80 percent = 0.80 = 8/10
25. 33 percent = 0.334 = 1/3

Guided Practice on Multiplication and Division

Unit I: Assignment 2

Do the following problems. If necessary, use decimal equivalents with up to three digits after the decimal point in your calculations. For example, 0.666 can be used to calculate more accurately than 0.67. Other answers should have no more than two digits after the decimal. Round up anything over two digits. 1.331 would become 1.34.

1. 654 × 34 = 22,236

2. 782 × 25 = 19,550

3. 82,992 divided by 24 = 3,458

4. 18,612 divided by 17 = 1,094.83

5. 439.78 × 0.875 = 384.81

6. 8.264 × 0.3264 = 2.70

7. 10.4 divided by 26 = 0.4

8. 0.167445 divided by 5.49 = 0.03

9. The decimal equivalent of 3/8 is 0.38 or 0.375

10. The decimal equivalent of 1/7 is 0.15 or 0.143

Independent Practice on Multiplication and Division

Unit I: Assignment 2

Do the following problems. If necessary, use decimal equivalents with up to three digits after the decimal point in your calculations. For example, 0.334 is the decimal equivalent of 1/3. For answers that are in dollars and cents, round the result up to the nearest penny. For example, $2.4444 in an answer would become $2.45.

Practice Problems

1. 32 × 34 = 1,088
2. 112 × 18.56 = 2,078.72
3. 620 × 18 = 11,160
4. 12 × $62.50 = $750.00
5. 111 × 999 = 110,889
6. 62 × $2.50 = $155.00
7. 624 divided by 24 = 26
8. 912 divided by $16.50 = $55.28
9. 1,000 divided by 20 = 50
10. 999 divided by $12.45 = $80.25
11. 12 divided by 1.5 = 8
12. 888 divided by 16.50 = $53.82

Application Problems

1. Danny earns $450.00 a month. During each month he plans to spend 1/4 of this amount for his car payment, 1/5 for lunches, 1/6 for clothing, 1/8 for recreation, and save the rest. How much money will Danny save, and how much will he spend on each item? Car payment $112.50 Lunches $90.00 Clothing $75.15 Recreation $56.25 Savings $116.55

   $450.00 × 0.25 = $112.50
   $450.00 × 0.20 = 90.00
   $450.00 × 0.166 = 75.15
   $450.00 × 0.125 = 56.25
   Total = $333.90

   $450.00
   − 333.90
   $116.10 = savings

2. Alfred Ellis owned a 2/3 interest in a business valued at $75,000.00. If he sold 1/6 of his holdings in the business, how much should he have received? Use a decimal equivalent of 0.167.

   Answer = $8,350.00

   2/3 of $75,000 is $50,000
   $50,000 × 0.167 = $8,350.00

3. When H.H. Theis made his will, he divided his estate of $240,000.00 among three children. If Joyce received 1/4 of the estate and Lou was willed 3/8 of the estate, how much would be left for the third child? Answer $90,000.00

   $240,000 × 0.25 = $60,000.00 Joyce's share
   $240,000 × 0.375 = $90,000.00 Lou's share
   $60,000.00 + $90,000.00 = $150,000.00 their total

$240,000 – _$150,000.00_ = _$90,000.00_ third child's share.

4. Find the cost of 232 pounds of tomatoes at 62 1/2 cents per pound. Answer _$145.00_

   232 × 62.5 = $145.00

5. Find the cost of 84 pints of buttermilk at 83 1/3 cents per pint. Answer _$70.00_

   84 × 0.83334 = $70.00

6. Find the decimal equivalent of 1/9. Answer _0.111_

7. Find the decimal equivalent of 1/3. Answer _0.334_

Guided Practice on Weights and Measures

Unit I: Assignment 3

Change the following weights and measurements as indicated, and show your work.

1. 3,660 in. to ft = 305 ft (3660/12 = 305)
2. 4,824 in. to ft = 402 ft (4824/12 = 402)
3. 7,236 in. to yd = 201 yd (7236/36 = 201)
4. 176 pt to qt = 88 qt (176/2 = 88)
5. 288 qt to gal = 72 gal (288/4 = 72)
6. 256 pt to gal = 32 gal (256/8 = 32)
7. 496 oz to lb = 31 lb (496/16 = 31)
8. 54 ft 5 in. to inches = 653 in. [(54 × 12) + 5 = 653]
9. 621 yd, 2 ft, 9 in. to inches = 22,389 in. [(621 × 36) + 33 = 22,389]
10. 438 qt to pt = 876 pt (438 × 2 = 876)

Change the following abbreviations to the weight or measure term they represent:

11. pt (pint)
12. oz (ounce)
13. ft (feet)
14. gal (gallon)
15. yd (yard)
16. in. (inch)

Use the table for metric/U.S. conversions to answer the following questions.

17. What would you tell a customer who wants to know how many pints are in a 2-liter bottle? 4.2 pt
18. If someone buys 2 kilograms of butter, how much butter are they getting in pounds? 4.4 lb
19. About how many bushels do you get if you buy 18 liters of produce? about 1/2 bushel
20. How many pints are in 3 liters? 6.3 pt

Independent Practice on Weights and Measures

Unit I: Assignment 3

Solve the following problems and show your work. You may consult the chart of U.S. weights and measures.

1. How many feet of fence will be needed to fence a farm 2.5 miles around? Feet? 13,200 Yards? 4,400 = Rods? 800

   2.5 × 5280 = 13,200 ft   13,200 ÷ 3 = 4,400 yd   13,200 ÷ 16.5 = 800 rd

2. How many pecks of apples in 586 bushels? 2,344 How many quarts? 18,752

   586 × 4 = 2,344   586 × 32 = 18,752

3. 876 gallons of ice cream were sold. How many quarts does this represent? 3,504

   876 × 4 = 3,504

4. A driveway 67 feet long and 8 feet wide is filled to a depth of 4 inches with gravel. How many cubic feet of gravel were used? 178.67 cu ft

   $\frac{67 \times 8}{3} = 178.67$

5. A buyer bought the following shirts: 9 dozen white, 13 dozen blue, 25 dozen tan. How many gross were purchased? 3.92 gross

   9 + 13 + 25 = 47 dozen × 12 = 564/144 = 3.92

Without consulting the table of U.S. weights and measures, make the following conversions:

6. 52 gal to qt 208 qt   52 × 4 = 208
7. 51 gal, 2 qt, 3 pt to pt 415 pt   (51 × 8) + (2 × 2) + 3 = 415
8. 23 lb, 11 oz to oz 379 oz   (23 × 16) + 11 = 379

Without consulting the conversion table for U.S. and metric units, make the following conversions.

9. 4 kilograms = 8.8 pounds
10. 4 liters = 8.4 pints

Guided Practice on Simple Interest

Unit II: Assignment 4

Use the cancellation or shortcut method, and round up the answer:

1. Find the interest on $2,000.00 for 30 days at 12%. Answer $20.00

$$\frac{\overset{200}{\cancel{\$2{,}000}} \times 0.12 \times \overset{5}{\cancel{30}}}{\underset{6}{\underset{\cancel{36}}{\cancel{360}}}} = \$20.00$$

2. Find the interest on $950.00 for 120 days at 6%. Answer $19.00

$$\frac{\$950 \times 0.06 \times \overset{1}{\cancel{120}}}{\underset{3}{\cancel{360}}} = \$19.00$$

3. Find the interest on $1,800.00 for 80 days at 18%. Answer $72.00

$$\frac{\overset{5}{\overset{\cancel{180}}{\cancel{\$1{,}800}}} \times 0.18 \times 80}{\underset{1}{\underset{\cancel{36}}{\cancel{360}}}} = \$72.00$$

Use the simple interest table and round up:

4. Find the interest on $340.00 for 50 days at 2%. Answer $0.945 or $0.95

$340 × (0.00139 + 0.00139) = 0.945 or $0.95

5. Find the interest on $480.00 for 25 days at 6%. Answer $2.01

$480 × 0.00417 = $2.0016 or $2.01

Independent Practice on Simple Interest

Unit II: Assignment 4

Use the cancellation method or shortcut method, and round up:

1. Find the interest on \$150.00 for 50 days at 12%. Answer \$2.50

$$\frac{\overset{15}{\$15\cancel{0}} \times 0.12 \times \overset{25}{\cancel{50}}}{\underset{\underset{18}{\cancel{36}}}{\cancel{360}}} = \$2.50$$

2. Find the interest on \$2,250.00 for 30 days at 12%. Answer \$22.50

$$\frac{\overset{1125}{\cancel{\$2{,}250}} \times 0.12 \times \overset{1}{\cancel{30}}}{\underset{\underset{6}{\cancel{180}}}{\cancel{360}}} = \$22.50$$

3. Find the interest on \$4,000.00 for 120 days at 18%. Answer \$240.00

$$\frac{\$4{,}000 \times 0.18 \times \overset{1}{\cancel{120}}}{\underset{3}{\cancel{360}}} = \$240.00$$

4. Find the interest on \$1,700.00 for 60 days at 12%. Answer \$34.00

$$\frac{\overset{850}{\cancel{\$1{,}700}} \times 0.12 \times \overset{1}{\cancel{60}}}{\underset{\underset{3}{\cancel{180}}}{\cancel{360}}} = \$34.00$$

5. Find the interest on \$54.60 for 6 days at 6%. Answer \$0.06

$$\frac{\overset{\overset{\overset{0.91}{\cancel{2.73}}}{\cancel{5.46}}}{\cancel{\$54.60}} \times 0.06 \times \overset{1}{\cancel{6}}}{\underset{\underset{\underset{\underset{1}{\cancel{3}}}{\cancel{6}}}{\cancel{36}}}{\cancel{360}}} = \$0.054 \text{ or } \$0.06$$

6. Find the interest on $1,212.00 for 30 days at 6%. Answer $6.06

$$\frac{\overset{101}{\$1,\cancel{212}} \times 0.06 \times \overset{1}{\cancel{30}}}{\underset{\underset{1}{\cancel{12}}}{\cancel{360}}} = \$6.06$$

7. Find the interest on $420.00 for 120 days at 18%. Answer $25.20

$$\frac{\overset{140}{\$\cancel{420}} \times 0.18 \times \overset{1}{\cancel{120}}}{\underset{\underset{1}{\cancel{3}}}{\cancel{360}}} = \$25.20$$

Use the interest table, and round up:

8. Find the interest on $160.00 for 24 days at 3%. Answer $0.32

$\$160 \times 0.00200 = \$0.32$

9. Find the interest on $123.00 for 25 days at 13%. Answer $1.11

$\$123 \times (0.00347 + 0.00347 + 0.00208) = \$1.109$ or $1.11

10. Find the interest on $410.00 for 19 days at 18%. Answer $3.90

$\$410 \times (0.00317 \times 3) = \$3.90$

SIMPLE INTEREST TABLE

Interest on $1.00 on a 360-Day Year Basis

Days	1%	2%	3%	4%	5%	6%
1	.00003	.00006	.00008	.00011	.00014	.00017
2	.00006	.00011	.00017	.00022	.00028	.00033
3	.00008	.00017	.00025	.00033	.00042	.00050
4	.00011	.00022	.00033	.00044	.00056	.00067
5	.00014	.00028	.00042	.00056	.00069	.00083
6	.00017	.00033	.00050	.00067	.00083	.00100
7	.00019	.00039	.00058	.00078	.00097	.00117
8	.00022	.00044	.00067	.00089	.00111	.00133
9	.00025	.00050	.00075	.00100	.00125	.00150
10	.00028	.00056	.00083	.00111	.00139	.00167
11	.00031	.00061	.00092	.00122	.00153	.00183
12	.00033	.00067	.00100	.00133	.00167	.00200
13	.00036	.00072	.00108	.00144	.00181	.00217
14	.00039	.00078	.00117	.00156	.00194	.00233
15	.00042	.00083	.00125	.00167	.00208	.00250
16	.00044	.00089	.00133	.00178	.00222	.00267
17	.00047	.00094	.00142	.00189	.00236	.00283
18	.00050	.00100	.00150	.00200	.00250	.00300
19	.00053	.00106	.00158	.00211	.00264	.00317
20	.00056	.00111	.00167	.00222	.00278	.00333
21	.00058	.00117	.00175	.00233	.00292	.00350
22	.00061	.00122	.00183	.00244	.00306	.00367
23	.00064	.00128	.00192	.00256	.00319	.00383
24	.00067	.00133	.00200	.00267	.00333	.00400
25	.00069	.00139	.00208	.00278	.00347	.00417
26	.00072	.00144	.00217	.00289	.00361	.00433
27	.00075	.00150	.00225	.00300	.00375	.00450
28	.00078	.00156	.00233	.00311	.00389	.00467
29	.00081	.00161	.00242	.00322	.00403	.00483
30	.00083	.00167	.00250	.00333	.00417	.00500

Guided Practice on Percentage, Base, and Rate

Unit II: Assignment 5

For each of the following, tell whether you found percentage, base, or rate, then give the numerical answer.

1. Tammy earned $450.00 in two weeks. She put $150.00 in her savings account for college. What percent of her earnings did she save? Answer Rate, 0.34 or 34%

   150/450 = 0.34

2. A buyer had to reduce inventory by 38%. If the merchandise was valued at $11,520,000.00, how much of a reduction was taken? Answer Percentage, $4,377,600.00

   $11,520,000 × 0.38 = $4,377,600

3. Michelle has been shopping for a stereo. She has saved $320.00. This is 80% of the retail price of the stereo. What is the retail price of the stereo? Answer Base, $400.00.

   $\frac{320}{0.80} = \$400.00$

4. Edith Brown has charged $2,550.00 on her First County bank card, which has a credit limit of $5,000.00. What percentage of her credit limit is left? Answer Rate, 49%

   $$\begin{array}{r} \$5,000 \\ \underline{-\ 2,550} \\ \$2,450 \end{array} \qquad \frac{\$2,450}{\$5,000} = 0.49 \text{ or } 49\%$$

5. Erin Keely manages CompuFun. The computer equipment and software that is used for demonstrations is valued at $45,535.00. The annual sale on demos has reduced this by 72%. How much demonstration equipment is left, in dollar value? Answer Percentage, $12,749.80

   $$\begin{array}{r} 100\% \\ \underline{-\ 72\%} \\ 28\% \end{array} \qquad 0.28 \times \$45,535 = \$12,749.80$$

Independent Practice on Percentage, Base, and Rate

Unit II: Assignment 5

For each of the following, first tell whether you found percentage, base, or rate, then give the numerical answer.

1. Thomas spent 40% of his monthly earnings of $660.00 on repaying a revolving charge. How much did he spend in dollars? Answer Percentage, $264.00

   $0.40 \times \$660 = \$264.00$

2. McGillicuddies' Tartan Tie Place spent 18% of its gross income of $80,000.00 each quarter on advertising. How much did it spend on advertrising? Answer Percentage, $14,400.00.

   $0.18 \times \$80{,}000 = \$14{,}400.00$

3. Johnson's Jar Shoppe spent $60,000.00 buying jars in 1989. It sold the jars for $100,000.00. What percent of its total sales figure for jars was spent on buying jars? Answer Rate, 0.60 or 60%

   $$\frac{60{,}000}{100{,}000} = 0.60$$

4. The payment on Mary's car was $212.00 per month. With gasoline and other related expenses, she spent a total of $360.00 on the car in January. What percent of her car expenses went for car payments in January? Answer Rate, 0.588 or 59%

   $$\frac{212}{360} = 0.588 \text{ or } 59\%$$

5. Joe made a good deal on a set of golf clubs, reporting that he paid $125.00, which was only 70% of their original price. What was the original price? Answer Base, $178.58

   $$\frac{125}{0.70} = \$178.58$$

Guided Practice on Extensions

Unit II: Assignment 6

1. On the sales slip below, enter these extensions and then add the amounts in the amount column to get a merchandise total: 3 ties at $22.50 each, 1 tie at $17.50, and 12 handkerchiefs at $1.75 each.

DEPT.	QTY.	ITEM	PRICE	AMT.
62	3	Ties	22.50	67.50
	1	Tie	17.50	17.50
	12	Handkerchiefs	1.75	21.00
		Mdse Total		106.00

2. On the inventory form below, add these two items and extend them to the total retail value column: 3 12" band saws at a retail unit price of $147.50 each, and 3 saber saws at a retail price of $67.50 each.

INVENTORY FORM

Date June 12 19 91 Counted by H.T.

Page Number 3 Checked by WLC.

Description of Merchandise	Units on Hand	Unit Price		Total Retail Value	
12" Band saws	3	147	50	442	50
Saber saws	3	67	50	202	50

Independent Practice on Extensions

Unit II: Assignment 6

1. Complete the price change form below by extending the items for which prices are being marked down. Note that what is extended is the unit difference for each item. They include 10 shirts being marked down from $28.00 to $17.00, and 15 shirts being marked down from $19.00 to $12.00.

PRICE CHANGE FORM

Date________________199__ Number____________

☐ Additional Markup ☐ Markdown Cancellation ☑ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
10 shirts #341	7	28	00	17	00	11	00	10	110	00
15 shirts #343	7	19	00	12	00	7	00	15	105	00
								Total	215	00

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ________________________

Form ST-13

2. Extend the sales slip below and add these items to get a merchandise total (MDSE TOTAL): 5 pairs of socks at $4.50 each, 1 tie tack at $19.50, and 6 undershirts at $9.00 each.

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
16	5	Socks #32	4.50	22.50
	1	Tie tack #390	19.50	19.50
	6	Undershirts # 311	9.00	54.00
		Mdse TOTAL	$	96.00

ME I: (b)(11)(C)

Guided Practice on Making Change

Unit III: Assignment 7

1. List the steps in making change after the change amount has been calculated automatically by a mechanical or electronic cash register or calculator.

   Step 1. Read the amount of change to be returned. This will have been automatically displayed by the cash register. Leave the money tendered out where it is clearly visible.
   Step 2. Count the change to yourself.
   Step 3. Count out the change to the customer, as it relates to the total stated change due.
   Step 4. Look the customer in the eye and say, "Thank you."

2. List the steps in making change when you must make the change calculation manually.

   Step 1. Leave the amount of money the customer gives you out where you can see it.
   Step 2. Count out the change to yourself as you take it from the cash drawer.
   Step 3. Tell the customer amount of the sale and the amount of money you received.
   Step 4. Count out the change to the customer exactly the same way you took it from the cash drawer, counting from the amount of the purchase all the way to the amount the customer gave you. At each point, tell the customer what the cumulative total is.
   Step 5. Look the customer in the eye and say, "Thank you."

3. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $50:00 for a purchase of $17.45. Also write what you would say to the customer if manual calculation is required.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
1				1	2		1	1

   "You gave me a $50 bill. That's $17.45 out of $50. $17.50, $18.00, $19.00, $20.00, $30.00. And $20.00 is $50. Thank you."

4. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $50.00 for a purchase of $17.45. In this case, the cash register shows that the change should be $32.55.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
	1			1	2		1	1

   "You gave me a $50 bill. Your change is $32.55. 55 cents. $32.00. $32.55. Thank you."

ME I: (b)(11)(C)

Independent Practice on Making Change

Unit III: Assignment 7

1. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $10.00 for a purchase of $5.25. Assume you do have half dollars. Also write what you would say to the customer if manual calculation is required.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
			1	1	4			

"You gave me a $10 bill. That's $5.25 out of $10. $5.50, $6.00, $7.00, $8.00, $9.00, and $1 is $10. Thank you."

4. In the columns below, show a combination of change and currency that would have the fewest possible items. The customer has given you $100.00 for a purchase of $67.95. You are out of half dollars. In this case, the cash register shows that the change should be $32.05.

Pennies	Nickels	Dimes	Quarters	Half Dollars	$1 Bills	$5 Bills	$10 Bills	$20 Bills
	1				2		1	1

"You gave me a $100.00 bill. Your change is $32.05. Five cents. $32.00. $32.05. Thank you."

ME I: (b)(11)(C)

Guided Practice on Cash Register Operation

Unit III: Assignment 8

1. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $210.00.

Pennies	*125*	= 125 × .01	= 1.25	in pennies
Nickels	*100*	= 100 × .05	= 5.00	in nickels
Dimes	*25*	= 25 × .10	= 2.50	in dimes
Quarters	*30*	= 30 × .25	= 7.50	in quarters
Halves	*5*	= 5 × .50	= 2.50	in halves
$1s	*25*	= 25 × 1.00	= 25.00	in ones
$5s	*15*	= 15 × 5.00	= 75.00	in fives
$10s	*5*	= 5 × 10.00	= 50.00	in tens
$20s	*2*	= 2 × 20.00	= 40.00	in twenties
		Total	= 208.75	

Check one and tell the amount.

Are you over _____ by _____?
short ✓ by 1.25?
balanced _____ at _____?

2. Using the information in the table below, complete the proof of cash slip to close out your cash bank.

Cash bank—$200.00
Cash received—$132.00
Cash paid out—$43.00
Actual cash in register—$289.00

Proof of Cash Slip .000 T (Register reading)

+ Opening Cash $200.00
Cash Received (includes checks) – 132.00
= 332.00
Cash Paid Out – 43.00
Cash that should be in the register = 289.00
Actual cash (includes checks) in the register = 289.00
0.00

Result

Overage_____ Shortage_____ Balanced ✓

ME I: (b)(11)(C)

Independent Practice on Cash Register Operation

Unit III: Assignment 8

1. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $190.00.

Pennies	75	= 75 ×	.01 =	.75	in pennies
Nickels	200	= 200 ×	.05 =	10.00	in nickels
Dimes	40	= 40 ×	.10 =	4.00	in dimes
Quarters	20	= 20 ×	.25 =	5.00	in quarters
Halves	6	= 6 ×	.50 =	3.00	in halves
$1s	25	= 25 ×	1.00 =	25.00	in ones
$5s	3	= 3 ×	5.00 =	15.00	in fives
$10s	5	= 5 ×	10.00 =	50.00	in tens
$20s	4	= 4 ×	20.00 =	80.00	in twenties
		Total	=	192.75	

Check one and tell the amount.

Are you over ✓ by 2.75?
short ______ by ______?
balanced ______ at ______?

2. The following represents contents of the cash bank you receive. Determine if you balance, or if you have an overage or a shortage. The cash bank total should be $182.90.

Pennies	115	= 115 ×	.01 =	1.15	in pennies
Nickels	150	= 150 ×	.05 =	7.50	in nickels
Dimes	30	= 30 ×	.10 =	3.00	in dimes
Quarters	25	= 25 ×	.25 =	6.25	in quarters
Halves	10	= 10 ×	.50 =	5.00	in halves
$1s	20	= 20 ×	1.00 =	20.00	in ones
$5s	10	= 10 ×	5.00 =	50.00	in fives
$10s	7	= 7 ×	10.00 =	70.00	in tens
$20s	1	= 1 ×	20.00 =	20.00	in twenties
		Total	=	182.90	

Check one and tell the amount.

Are you over ______ by ______?
short ______ by ______?
balanced ✓ at 182.90?

3. Using the information below, complete the proof of cash slip to close out your cash bank.

Cash bank—$100.00
Cash received—$17.59
Cash paid out—$5.88
Actual cash in register—$111.71

Proof of Cash Slip	.000 T	(Register reading)
Opening Cash	$100.00	
Cash Received (includes checks)	+ 17.59	
	= 117.59	
Cash Paid Out	- 5.88	
Cash that should be in the register	111.71	
Actual cash (includes checks) in the register	111.71	

Result

Overage______ Shortage______ Balanced ✓

Guided Practice on Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Unit III: Assignment 9

1. List six types of information you might find on a sales slip.

   (Any six) Who made the sale; when; what was sold; location of sale; type of sale; amount of sale; tax rate; amount of tax charges; total price + tax; customer information if on charge sales

2. What might be done if an item is returned?

   For a cash sale, cash could be refunded. For a charge sale, the account would be credited. The transaction would be recorded.

3. What might be done in the case of an even exchange?

   No money would exchange hands, but a sales slip would record the transaction.

4. What might be done if an item is exchanged for one of greater value?

   If a cash situation, the customer could pay the diference. If for charges, account would be credited for first item, and the new item would be charged to the account.

5. What might be done if an item is exchanged for one of lesser value?

   If for cash, customer would be paid cash or a cash refund receipt. If for charged purchases, a charge credit would be issued on first item, and the new item charged to the account.

6. Calculate the sales tax for 75 cents, using a sales tax rate of 8%. $0.06

   0.75 × 0.08 = $0.06

7. Using this information, do the calculations needed for the top half of the retail installment contract provided. A camcorder is being purchased for $898.88. The sales tax rate is 8%. The finance charge is 18%. A $100.00 down payment is made. There is no trade-in.

RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

The undersigned customer ("Buyer" whether one or more) hereby purchases from Rink's a division of ABC Department Stores, Inc. ("Seller") and Seller hereby sells, upon the terms and conditions stated below, the following described property (the "goods").

CONTRACT NO.

Dept #	Description of Item	Price
	CAMCORDER	898.88
	Sales Tax 8%	71.91
Total Cash Price Including Tax		970.79

1. (A) Cash Price $898.88
   (B) Price of any accessories and/or services not included in (A) $ —
2. Sales Tax $71.41
3. Total Cash price (1A, 1B, and 2) $970.79
4. Downpayment
   (A) Cash $100.00
   (B) Trade-in allowance $ —
5. Item 3–Item 4 $870.79
6. Unpaid Balance of Cash Price (Amount Financed) $870.79
7. Finance Charge at 18% $156.75
8. Deferred Payment Price (3 + 7) $1127.54
9. Total of Payments (6 + 7) $1027.54

ME I: (b)(11)(B)(C)

Independent Practice on Sales Slips, Credit Card Charges, Sales Tax, Refunds, Exchanges, and Installment Contracts

Unit III: Assignment 9

1. Use the sales tax equation to calculate the sales tax for items totaling $64.55, with a sales tax rate of 8%. Answer _$5.16_

   $64.55 × 0.08 = $5.16

2. Record this sale which was made to Jim Stuart at Henry's Haberdashery. It is for cash, and the department is 16. Sales tax will be 8%, or 0.08.

   1 knit shirt, #36323, $13.88
   1 dress shirt, #48100, $19.96
   6 pair hose, #66264, $4.50 each

EMPLOYEE #__________

NAME Jim Stuart

ADDRESS__________

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
16	1	Knit shirt #36323	13.88	13.88
16	1	dress shirt #48100	19.96	19.96
16	6	pair hose #66264	4.50	27.00
		MDSE TOTAL		60.84
		SALES TAX		4.87
		TOTAL		$65.71

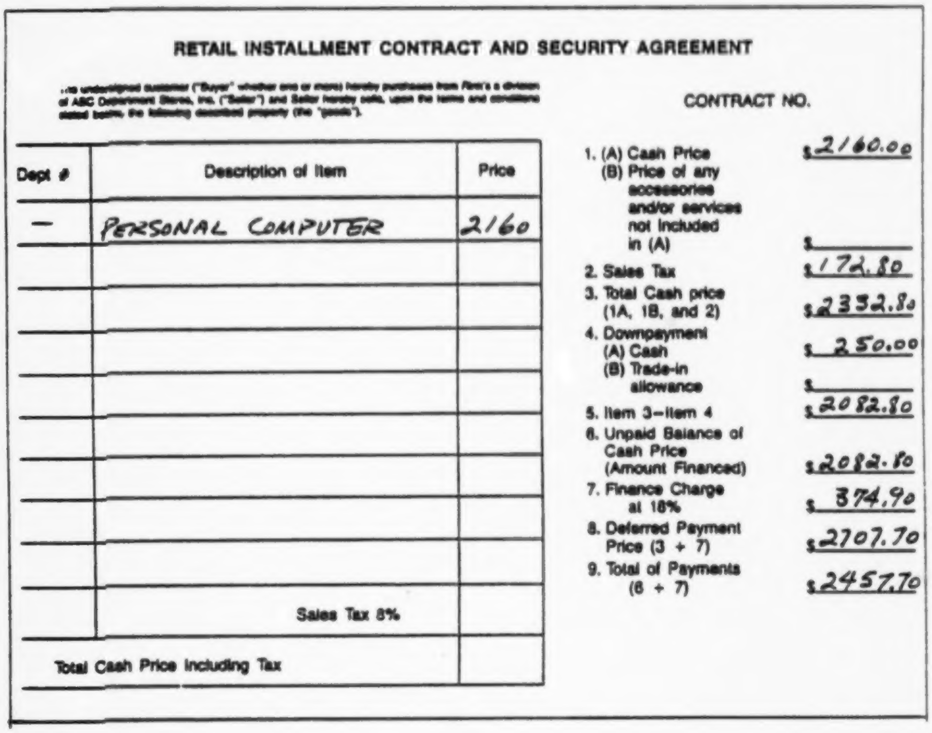
3. Betty Carfixer charges a $99.00 mechanic's tool set to her account at Speedy's, then two days later comes back and exchanges it for one costing $149.00. What would be the difference in total prices between what she paid for the first set and what the second set will cost? Sales tax should be figured at 8%, or 0.08. How would the salesperson handle the transaction?

   Difference in total prices for sales is $ $54.00 .

   $149 × 0.08 = $11.92 for sales tax, and total price is $160.92.
   $99 × 0.08 = $7.92 for sales tax, and total price is $106.92.
   $54.00 is difference in totals

   Her account would be credited with $106.92 for the first sale, and the total of $160.92 for the second purchase would be charged.

4. Using this information, do the calculations needed for the top half of the retail installment contract provided. A personal computer is being purchased for $2,160.00. The sales tax rate is 8%. The finance charge is 18%. The down payment is $250.00. There is no trade-in.



RETAIL INSTALLMENT CONTRACT AND SECURITY AGREEMENT

CONTRACT NO.

Dept #	Description of Item	Price
—	PERSONAL COMPUTER	2160
	Sales Tax 8%	
Total Cash Price Including Tax		

1. (A) Cash Price	$2160.00
(B) Price of any accessories and/or services not included in (A)	$
2. Sales Tax	$172.80
3. Total Cash price (1A, 1B, and 2)	$2332.80
4. Downpayment (A) Cash	$ 250.00
(B) Trade-in allowance	$
5. Item 3—Item 4	$2082.80
6. Unpaid Balance of Cash Price (Amount Financed)	$2082.80
7. Finance Charge at 18%	$ 374.90
8. Deferred Payment Price (3 + 7)	$2707.70
9. Total of Payments (6 + 7)	$2457.70

ME I: (b)(11)(B)(C)

Guided Practice on Employee and Other Retail Discounts

Unit III: Assignment 10

Complete sales slips for the business or employee purchases described in each of the situations that follow. They are both for cash. You can make up the employee identification number and address, or DECA chapter name where needed.

1. Monica Smith, a DECA officer for her local chapter, needs to purchase napkins and candles for installation of officers. Jim's Variety Store offers nonprofit organizations a discount. She knows that she must identify herself in order to receive the 10% business discount. The merchandise she needs has a retail price of $8.75 before discounting. Items are two boxes of napkins at $1.25 each, and a package of decorative candles at $6.25. The sales tax rate is 8%.

   $8.75 × 0.10 = $0.88 business discount.
   Merchandise total with discount is = $7.87
   Sales tax = $7.87 × 0.08 = $0.63
   $7.87 + 0.63 = $8.50

Jim's VARIETY STORE

DATE ________

EMPLOYEE # (as written)

NAME Monica Smith

ADDRESS (as written)

CASH ☑ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
7	2	Napkins Boxes	1.25	2.50
	1	Box Candles	6.25	6.25
				8.75
				.88
		–10% for DECA # discount		7.87
		MDSE TOTAL		7.87
		SALES TAX		.63
		TOTAL		8.50

2. Laura O'Hara, an associate at Danielle's Jewelry Store, wishes to purchase a bracelet, #36451, that retails for $65.00. She knows that she must identify herself in order to receive the 40% employee discount. The department is #3.

$65.00 × 0.40 = $26 discount
Merchandise total with discount is $39.00. Sales tax is $39.00 × 0.08 = $3.12.
Total is $42.12.

DANIELLE'S

DATE ____________

EMPLOYEE # (as written)

NAME Laura O'Hara

ADDRESS (as written)

CASH ☑ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
3	1	Bracelet, #36451	$65.00	65.00
				26.00
		-40% employee discount		
			MDSE TOTAL	39.00
			SALES TAX	3.12
			TOTAL	42.12

ME I: (b)(11)(B)(C)

Independent Practice on Employee and Other Retail Discounts

Unit III: Assignment 10

Prepare sales slips reflecting retail discounts for the following situations. The sales tax rate is 8%. Both sales are for cash. The department is No. 6. You can make up the identification or social security number needed.

1. Cindy Lyons, an employee at Arvey's Drugstore, wants to purchase cosmetics including lipstick for $4.25, blusher for $5.50, and nail polish for $3.95. She knows that she must identify herself in order to receive the 15% employee discount.

   Original merchandise total is $13.70.
   $13.70 × 0.15 = $2.06 employee discount
   New merchandise cost is $11.64.
   Sales tax = $11.64 × 0.08 = $0.94.
   Total price is $12.58.

NAME Cindy Lyons

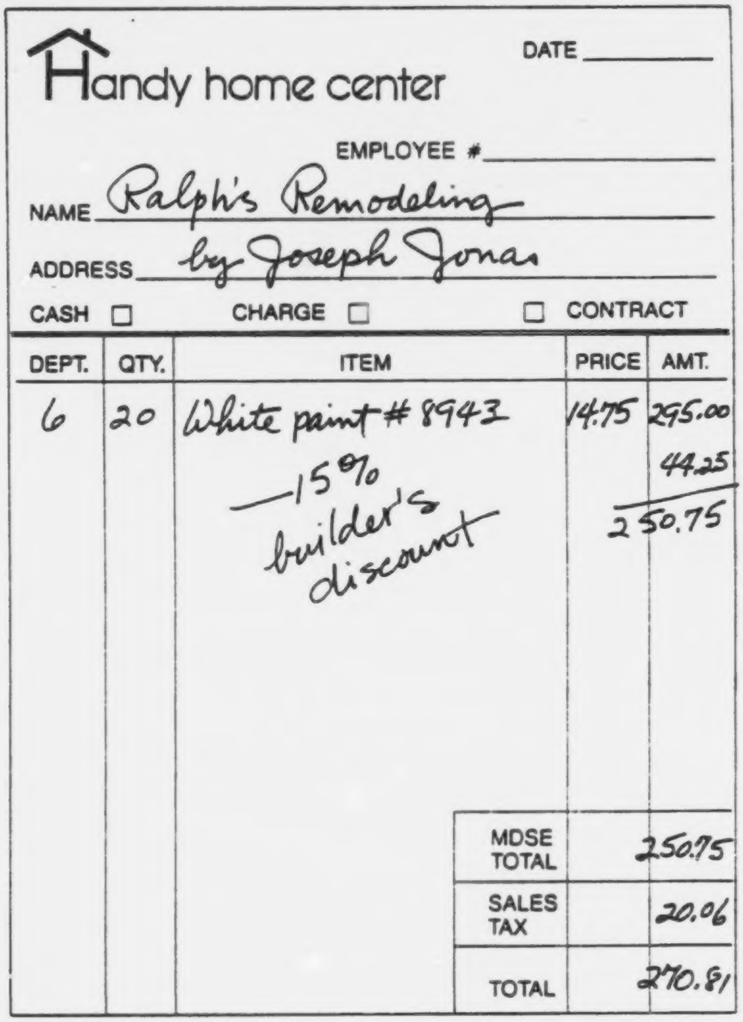
ADDRESS (As written)

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
6	1	Lipstick	4.25	4.25
6	1	Blusher	5.50	5.50
6	1	Nail polish	3.95	3.95
				13.70
		-15% discount		2.06
		MDSE TOTAL	$	11.64
		SALES TAX		.94
		TOTAL		12.58

2. Ralph's Remodeling buys 20 gallons of white paint, #8943, for $295.00 from the Handy Home Center. This comes to $14.75 a gallon. Ralph's is entitled to a 15% builder's discount. The sales slip is to be signed by Joseph Jonas.

$295 × 0.15 = $44.25
New merchandise cost is $250.75.
$250.75 × 0.08 = $20.06 sales tax
Total is $270.81.



Handy home center

DATE ________

EMPLOYEE # ________

NAME Ralph's Remodeling

ADDRESS by Joseph Jonas

CASH ☐ CHARGE ☐ ☐ CONTRACT

DEPT.	QTY.	ITEM	PRICE	AMT.
6	20	White paint #8943	14.75	295.00
		—15% builder's discount		44.25
				250.75

MDSE TOTAL	250.75
SALES TAX	20.06
TOTAL	270.81

Guided Practice on Receiving and Marking Merchandise

Unit IV: Assignment 11

1. What is a packing slip, and how is it different from an invoice?

   A packing slip is the document that arrives with the merchandise and lists what should be delivered. It differs from an invoice in that the columns for unit price and $ amounts have been blacked out.

2. List the information that might be contained on an invoice.

   Information includes date, vendor's control number, purchase order number, terms, name of carrier, to whom shipped, stock locator numbers, quantities, descriptions, prices per unit, and $ amounts resulting from extensions. Also possible are number of cartons shipped, weight, discounts available, and due dates.

3. What is an apron, and why is it important to a buyer?

   An apron is a document to which invoices are attached and on which is recorded additional information that is needed by the store.

4. What kind of information is usually included on a price tag?

   Price tag information includes date received, actual cost of merchandise, source, retail price, descriptors, department codes, and stock numbers.

5. What are the principles of marking merchandise?

   The price mark should be distinguishable.
   Marking should be sufficiently permanent, yet readily removable.
   Marking should not be injurious.
   Price should be readily available to salesclerk and customer.
   Marking should be neat, legible, not unattractive.
   Marking should allow for ease in price revision.
   Marking in one department should involve as few standard methods as possible.
   Method of marking should be fast and inexpensive in terms of labor and supplies.

6. What is the purpose of the receiving record?

   The receiving record provides a place for the checker to indicate what is actually received.

Independent Practice on Receiving and Marking Merchandise

Unit IV: Assignment 11

1. List the information that might be contained on a packing slip.

   Information includes date, vendor's control number, purchase order number, terms, name of carrier, to whom shipped, stock locator numbers, quantities, descriptions, number of cartons shipped, weight, discounts available, and due dates.

2. How does the packing slip relate to the receiving record?

   They are both indications of what merchandise should be in a shipment. One is made up by the vendor, the other by the checker at the store.

3. How are aprons and rubber stamps used on the back of invoices related?

   They both contain additional information needed by the buyer and the store.

4. What is meant by the statement of principle about permanence of marking?

   Marking should be sufficiently permanent to last until the merchandise is sold, yet readily removable after the sale.

Guided Practice on Markdowns and Other Price Changes

Unit IV: Assignment 12

1. Define *markdown.*

   A markdown is any reduction from the existing price.

2. Explain why markdowns are needed.

   Markdowns are needed to sell merchandise that would not otherwise sell. They may be caused by slow-moving merchandise, the need for a stock reduction, seasonal changes, a drop in general price structure, and for other reasons.

3. Why is a markdown considered a "controlled shortage"?

   Markdowns are shortages because they cause a difference in the book and physical inventories. They are controlled because the amount of the difference can be forecast and controlled.

4. The original price of a shirt is $49.00. The sale price is $29.95. What is the amount of the markdown in dollars? _\$19.05_ How much is the price reduction as a percent of the original price? _49%_

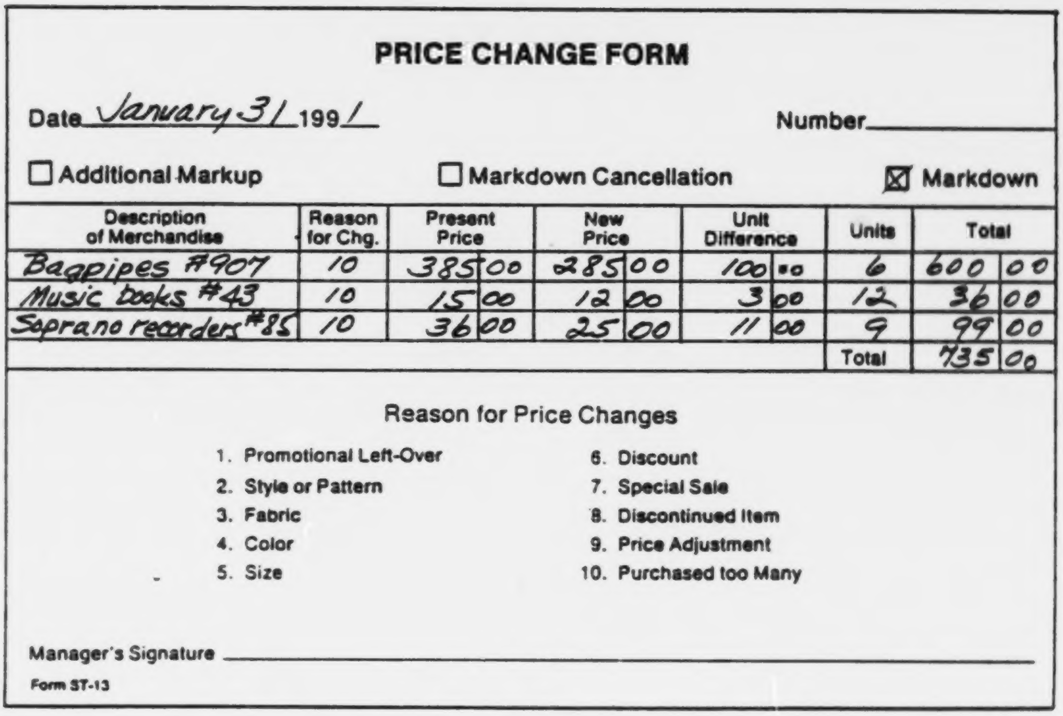
   $49.00 – $29.95 = $19.05 $19.05/$39.00 = 49%

5. David works at George's Department Store. A customer wanted to purchase the following items with the corresponding price reductions. Calculate the prices to be charged after the markdowns are taken.

   1 personal computer $1,445.00 less 20% _\$1,156.00_
   1 color monitor $349.99 less 15% _\$297.492 or $297.50_
   1 printer $299.99 less 10% _\$269.991 or $270.00_

6. Record the following markdowns on the price change form.

   6 bagpipes #907 from $385.00 to $285.00
   12 music books #43 from $15.00 to $12.00
   9 soprano recorders #85 from $36.00 to $25.00



PRICE CHANGE FORM

Date *January 31* 199*1*   Number________

☐ Additional Markup   ☐ Markdown Cancellation   ☒ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
Bagpipes #907	*10*	*385*	*00*	*285*	*00*	*100*	*00*	*6*	*600*	*00*
Music books #43	*10*	*15*	*00*	*12*	*00*	*3*	*00*	*12*	*36*	*00*
Soprano recorders #85	*10*	*36*	*00*	*25*	*00*	*11*	*00*	*9*	*99*	*00*
								Total	*735*	*00*

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
7. Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

Manager's Signature ______________________

Form ST-13

ME I: (b)(11)(A)

Independent Practice on Markdowns and Other Price Changes

Unit IV: Assignment 12

1. What is the dollar amount change on a $60.00 item that is to be marked down 30%? $18.00
What is the new price? $42.00

   $60 × 0.30 = $18 reduction. $42 is the new price.

2. If an item is reduced from $90.00 to $60.00, what is the % of reduction? 34%

   $30/$90 = 0.333 or 34%

3. What is the dollar amount change of a $100.00 item that is marked down 40%? $40.00
What is the new price? $60.00

   $100 × 0.40 = $40. $100 – $40 = $60.

4. Ted's TV is having a Memorial Day Sale and reducing the price on several of the portable TV sets and VCR's. Use the following information to complete the price change form:

   7 – 20" color #4207 from $400.00 to $299.97
   12 – 13" remote color #9814 from $279.00 to $199.97
   5 – 4-head VHS VCR #1062 from $440.00 to $279.97

PRICE CHANGE FORM

Date February 28 1991 Number 1742

☐ Additional Markup ☐ Markdown Cancellation ☒ Markdown

Description of Merchandise	Reason for Chg.	Present Price		New Price		Unit Difference		Units	Total	
TV-20" #4207	7	400	00	299	97	100	03	7	700	21
13" TV #9814	7	279	00	199	97	79	03	12	948	36
VCR #1062	7	440	00	279	97	160	03	5	800	15
								Total	2448	72

Reason for Price Changes

1. Promotional Left-Over
2. Style or Pattern
3. Fabric
4. Color
5. Size
6. Discount
[✓ 7.] Special Sale
8. Discontinued Item
9. Price Adjustment
10. Purchased too Many

ME I: (b)(8)(A)

Guided Practice on Taking Inventory

Unit IV: Assignment 13

1. What is the difference between physical inventory and book inventory? Why is physical inventory necessary?

   Book inventory is done just by keeping records, while physical inventory requires an actual count. Physical inventory is required because book inventory may be inaccurate.

2. List some of the facts a physical inventory gives to management.

   Actual number of items on hand by description, stock number, and department
   Actual dollar cost invested in inventory (and retail value) at the time inventory is taken
   Condition of items inventoried
   Whether there is old stock that should be rotated so that it is sold first
   Exact amount of shrinkage and where it occurs most often

3. Complete the following inventory sheet using the information provided:

Red sweatshirt, Adult sm	14351	AOS	J 4	8 units	$7.00 each
Red sweatshirt, Adult med	14352	AOS	J 4	15 units	$7.00 each
Red sweatshirt, Adult lg	14353	AOS	J 4	24 units	$7.00 each
Grey sweatshirt, Adult sm	14361	AOS	J 4	4 units	$7.00 each
Grey sweatshirt, Adult lg	14363	AOS	J 4	17 units	$7.00 each

Store or department________________

Inventory Form

Date__________ Counted by__________ Page number______ Checked by__________

Description	Stock no.	Cost code	Season code	Units on hand	Unit price	Total retail value
Red sweatshirt, Adult, Sm	14351	AOS	J4	8	7.00	56.00
Red sweatshirt, Adult, Med.	14352	AOS	J4	15	7.00	105.00
Red sweatshirt, Adult, Lg.	14353	AOS	J4	24	7.00	168.00
Grey sweatshirt, Adult, Sm	14361	AOS	J4	4	7.00	28.00
Grey sweatshirt, Adult, Lg	14362	AOS	J4	17	7.00	119.00

ME I: (b)(8)(A)

Independent Practice on Taking Inventory

Unit IV: Assignment 13

Complete the inventory sheet provided using the information below.

Red T-shirt, Adult sm	23151	MEW	B 5	8 units	$7.00 each
Red T-shirt, Adult med	23152	MEW	B 5	15 units	$7.00 each
Red T-shirt, Adult lg	23153	MEW	A 5	24 units	$7.00 each
Grey T-shirt, Adult sm	23141	MEW	B 5	4 units	$7.00 each
Grey T-shirt, Adult lg	23143	MEW	A 5	17 units	$7.00 each
Red windbreaker, Adult sm	34651	TSSN	B 5	3 units	$18.95 each
Red windbreaker, Adult lg	34653	TSSN	B 5	11 units	$18.95 each
Baseball cap, red	48852	ASW	B 5	32 units	$7.50 each
Baseball cap, white	48842	ASW	B 5	16 units	$7.50 each

Store or department______________________

Inventory Form

Date____________ Counted by____________ Page number______ Checked by__________

Description	Stock no.	Cost code	Season code	Units on hand	Unit price	Total retail value
Red T-shirt, Adult, Sm	23151	MEW	B5	8	7.00	56.00
Red T-shirt, Adult, Med.	23152	MEW	B5	15	7.00	105.00
Red T-shirt, Adult, Lg.	23153	MEW	A5	24	7.00	168.00
Grey T-shirt, Adult Sm.	23141	MEW	B5	4	7.00	28.00
Grey T-shirt, Adult, Lg.	23143	MEW	A5	17	7.00	119.00
Red windbreaker, Adult Sm.	34651	TSSN	B5	3	18.95	56.85
Red windbreaker, Adult, Lg.	34653	TSSN	B5	11	18.95	208.45
Baseball Cap, Red	48852	ASW	B5	32	7.50	240.00
Baseball Cap, white	48842	ASW	B5	16	7.50	120.00

Total retail value__________

Guided Practice on Cash Discounts

Unit V: Assignment 14

Do the following problems by placing the correct information in each blank, based on the stated terms.

1. Cash discount terms on the invoice are 3/10, n/30. The invoice is dated May 23 for an amount of $3,560.00. Begin counting days the day after the invoice date.

   Amount saved by taking discount _$106.80_
   Amount paid if discount taken _$3,453.20_
   Last date for taking discount _June 2_
   Last date for paying net amount if discount not taken _June 22_

2. Invoice terms are 2/10, net 30 as of March 15. The invoice is dated February 28 for a net amount of $820.00.

   Amount saved by taking discount _$16.40_
   Amount paid if discount taken _$803.60_
   Last date for taking discount _March 25_
   Last date for paying net amount if discount not taken _April 24_

3. Terms are 4/15, n/45 X 30. The invoice dated December 10 is for $4,500.00.

   Amount saved by taking discount _$180.00_
   Amount paid if discount taken _$4,320.00_
   Last date for taking discount _January 24_
   Last date for paying net amount if discount not taken _February 23_

4. Invoice terms are 6/10, net 30, EOM. The invoice is dated April 11 for $925.00.

   Amount saved by taking discount _$55.50_
   Amount paid if discount taken _$869.50_
   Last date for taking discount _April 21_
   Last date for paying net amount if discount not taken _May 20_

Independent Practice on Cash Discounts

Unit V: Assignment 14

Do the following problems by placing the correct information in each blank, based on terms of payment provided.

1. The invoice is dated May 6, for merchandise costing $1,100.00 received July 28. Terms are 8/10 ROG.

   Amount saved by taking discount $88.00
   Amount paid if discount taken $1,012.00
   Last date for taking discount August 7
   Last date for paying net amount if discount not taken August 27

2. The invoice is dated August 11 for merchandise in the amount of $960.00 with terms of 3/10, net 30, X60.

   Amount saved by taking discount $28.80
   Amount paid if discount taken $931.20
   Last date for taking discount October 20
   Last date for paying net amount if discount not taken November 9

3. The invoice date is April 4, for an amount of $670.00 with terms of 2/10, n/30.

   Amount saved by taking discount $13.40
   Amount paid if discount taken $656.60
   Last date for taking discount April 14
   Last date for paying net amount if discount not taken May 4

4. The invoice is dated April 30, for an amount of $1,000.00 with terms of 2/10.

   Amount saved by taking discount $20.00
   Amount paid if discount taken $980.00
   Last date for taking discount May 10
   Last date for paying net amount if discount not taken May 30

Guided Practice on Information on Invoices

Unit V: Assignment 15

1. A list of abbreviations and words you might find on an invoice follows. After each one, tell what it means and whether it refers to shipping instructions, transportation charges, or terms of payment.

   Shipped via—tells what company transported the merchandise. Shipping instructions.
   F.O.B.—Free on board, point to which vendor will pay transportation charges. Transportation charges.
   Terms—This is short for "terms of payment," which tell when payment is to be made and what discounts may be available for paying as requested. Terms of payment.

2. Why is it important to know the number of packages?

   This lets the receiver know if any packages are missing from the shipment.

3. Why are shipping instructions provided on the invoice, and why are they important?

   Shipping instructions may or may not be followed. This can affect how much transportation charges are to be paid, as well as other matters.

4. What is the relationship between transportation charges and cost of merchandise?

   Transportation charges if paid by the retailer become part of the cost of merchandise which must be reflected in the retail sales price.

5. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

   These items are used to refer to the specific invoice and situation when writing about or discussing the shipment.

6. Which items of information on an invoice are used when checking the specific merchandise received?

   These include stock locator number, quantity, description, price, and amount columns.

Independent Practice on Information on Invoices

Unit V: Assignment 15

1. What is the purpose of information of this kind appearing on an invoice: invoice number, our control number, purchase order number, salesperson, and invoice date?

   These are used to refer to the specific invoice and situation when writing about or discussing the shipment.

2. Which items of information on an invoice are used when checking the specific merchandise received?

   These include stock locator number, quantity, description, price, and amount columns.

3. Why is it important to know the number of packages?

   This lets the receiver know if any packages are missing from the shipment.

4. Why are shipping instructions provided on the invoice, and why are they important?

   Shipping instructions may or may not be followed. This can affect the transportation charges to be paid, as well as other matters.

5. What is the relationship between transportation charges and cost of merchandise?

   Transportation charges if paid by the retailer become part of the cost of merchandise which must be reflected in the retail sales price.

ME I: (b)(11)(B)

Guided Practice on Determining Length of Time When Calculating Discounts and Interest

Unit V: Assignment 16

1. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart found in the assignment. Write your answers in the spaces provided.

133 a. June 5 to October 16
72 b. March 5 to May 16
51 c. November 10 to December 31
74 d. August 20 to November 2
109 e. May 4 to August 21
46 f. October 20 to December 5

2. In each of the following, find the exact number of days between the date in Column A and the date in Column B, which is the following year:

		Column A (this year)	*Column B (following year)*
345	a.	March 9	February 17
447	b.	January 14	April 6
518	c.	April 10	September 10
595	d.	March 15	October 31

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

ME I: (b)(11)(B)

Independent Practice on Determining Length of Time When Calculating Discounts and Interest

Unit V: Assignment 16

1. For each of the following situations, find the exact number of days between the two days given. Use any method you wish, including the chart found in the assignment. Write your answers in the spaces provided.

94 a. June 8 to September 10
54 b. January 2 to February 25
156 c. April 12 to September 15
102 d. August 10 to November 20
74 e. July 18 to September 30
147 f. March 12 to August 6

2. In each of the following, find the exact number of days between the date in Column A and the date in Column B, which is the following year:

	Column A (this year)	*Column B (following year)*
362	a. March 2	February 27
470	b. January 1	April 16
539	c. April 7	September 24
591	d. March 7	October 19

	To the Same Day of the Next											
From Any Day of	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	151	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

ME I: (b)(11)(B)
Entrep: (h)(6)

Guided Practice on Computing Wages

Unit VI: Assignment 17

Hourly wage:

1. James began working at 4:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? 6.25 His hourly wage is $4.00 per hour. What was his gross pay? $25.00

$$\begin{array}{r} 10\ 3/4 \\ \underline{-\ 4\ 2/4} \\ 6\ 1/4 \end{array} \quad \text{or} \quad \begin{array}{r} 22.75 \\ \underline{-\ 16.50} \\ 6.25 \end{array}$$

6 1/4 hours × $4.00 per hour = $25.00 or $\begin{array}{r} 6.25 \\ \underline{\times 4} \\ \$25.00 \end{array}$

2. Joe Henderson, an employee of the Space Tech Company, is paid an hourly rate of $4.50 per hour with time and a half overtime. He is paid weekly, on the basis of a 40-hour week. During one week, he worked 44 hours. Joe's regular pay was $180.00; his overtime pay was $27.00. Joe's gross (total) pay for that week was $207.00.

$$\begin{array}{rl} \$4.50 & \text{per hour} \\ \underline{\times 40} & \text{hours} \\ \$180.00 & \text{at regular rate} \end{array}$$

$$\begin{array}{rl} \$6.75 & \text{per hour} \\ \underline{\times 4} & \text{hours} \\ \$27.00 & \text{at time and a half rate} \end{array}$$

$180.00 + $27.00 = $207.00

Piece-rate wage:

3. John Harty works on the production line at Magna Computers. His pay is based on a piece rate of $0.95 per circuit board. Last week, he completed 63 on Monday, 71 on Tuesday, 62 on Wednesday, 70 on Thursday, and 75 on Friday. How much was John's gross pay for the week? $323.95

341 circuit boards completed × $0.95 per board = $323.95 total (gross) wages earned

63 Monday
71 Tuesday
62 Wednesday
70 Thursday
+ 75 Friday
341
× .95
1705
3069
$323.95

4. Julia Greene is paid $5.00 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. What was Julia's gross pay for the week? $135.00

Collars completed + 12 = units to be paid for

Units to be paid for × $5.00 per unit = gross pay for the week

65 Monday
60 Tuesday
63 Wednesday
64 Thursday
72 Friday
324 total assemblies

27 units (dozens)
Unit of payment 12/324
24
84
84

27 units × $5.00 per unit = $135.00 gross pay for week

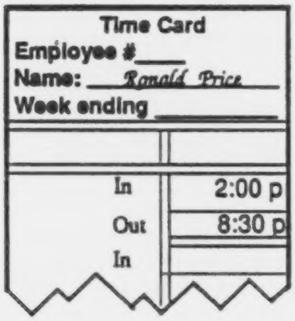
Computing wages from time cards:

5. The time card below shows when Ronald "punched in" and when he "punched out." Ronald's hourly rate is $4.25. How many hours did Ronald work? 6.5 What was his gross pay for the day's work? $27.63

2:00 p = 14:00 started working
8:30 p = 20:30 stopped working

20:30 stopped
− 14:00 started
6:30 = 6 1/2 or 6.5 hours

$4.25 hourly rate
× 6.5 hours
2125
2550
$27.625 or $27.63 gross pay



Time Card
Employee #____
Name: Ronald Price
Week ending ____

In	2:00 p
Out	8:30 p
In	

6. Jo's time card is shown below. How many hours did she work on the two days shown? Based on an hourly rate of $4.30, what was her gross pay for those two days?

4.25 hours the 1st day

+ 5.25 hours the 2nd day

9.50 total hours

$40.85 gross pay

Time Card	
Employee #	
Name: Jo Lee Gray	
Week ending	
In	12:45 a
Out	5:00 p
In	10:30 a
Out	3:45 p

First day	16 4/4	out	Second day	15 3/4	out
	− 12 3/4	in		− 10 2/4	in
	4 1/4			5 1/4	

Total hours = 9 1/2 or 9.5 and

$$\begin{array}{r} \$4.30 \\ \underline{\times\ 9.5} \\ 2150 \\ \underline{3870} \\ \$40.850 \end{array}$$

or $40.85 gross pay

Technical Learning Concepts

Define the following terms.

gross pay—all pay added together
hourly wage—the established rate for each hour worked
military time—determined by adding 12 to hours between noon and midnight
overtime (OT)—also called time and a half pay
piece-rate—a rate based on number of units produced or finished
rate—the amount of pay for a unit of work—in hours, pieces, or days
termination offense—an offense for which you can be fired
wages—money paid for an employee for labor or services performed hourly, daily, or on a piece-rate basis
net pay—what the employee is actually paid after deductions are subtracted from the gross pay

ME I: (b)(11)(B)
Entrep: (h)(6)

Independent Practice on Computing Wages

Unit VI: Assignment 17

1. James began working at 3:30 P.M. and stopped working at 10:45 P.M. How many hours did he work? 7.25 His hour rate is $4.35 per hour. What was his gross pay? $31.54.

10 3/4	or	22.75
− 3 2/4		− 15.50
7 1/4		7.25

7 1/4 hours × $4.35 an hour

7.25
4.35
3625
2175
2900
$31.5375 or $31.54 gross pay

2. Joe Henderson, an employee of the Space Tech Company, is paid an hourly rate of $4.00 per hour with time and a half overtime. He is paid weekly, on the basis of a 40-hour week. During one week, he worked 44 hours. Joe's regular pay was $160.00; his overtime pay was $24.00. Joe's gross (total) pay for that week was $184.00.

$4.00	per hour
× 40	hours
$160.00	at regular rate

$6.00	per hour
× 4	hours
$24.00	at time and a half rate

and $160 + 24 = $184

3. John Harty works on the production line at Magna Computers. His pay is based on a piece rate of $0.85 per circuit board. Last week, he completed 73 on Monday, 61 on Tuesday, 82 on Wednesday, 74 on Thursday, and 66 on Friday. How much was John's gross pay for the week? $302.60

356 circuit boards completed × $0.85 per board = $302.60 total (gross) wages earned

73 Monday
61 Tuesday
82 Wednesday
74 Thursday
66 Friday
356
× 0.85
1780
2848
$302.60

4. Julia Greene is paid $5.50 per dozen for each dozen collar assemblies she completes. During one week, Julia completed 65 collar assemblies on Monday, 60 on Tuesday, 63 on Wednesday, 64 on Thursday, and 72 on Friday. What was Julia's gross pay for the week? $148.50

65 Monday
60 Tuesday
63 Wednesday
64 Thursday
72 Friday
324 or

$$\begin{array}{r} 27 \\ 12\,\overline{)\,324} \\ \underline{24} \\ 84 \\ 84 \end{array}$$

27 units (dozens) to pay for at $5.50 each or $5.50
× 27
3850
1100
$148.50

5. The time card below shows when Ronald "punched in" and when he "punched out." Ronald's hourly rate is $4.25. How many hours did Ronald work? 5.5 What was his gross pay for the day's work? $23.38

Time Card	
Employee #	
Name:	
Week ending	
In	10:00 a
Out	3:30 p

15:30 p out
− 10:00 a in
5:30 hours worked

$4.25 hourly rate
5.5 hours
2125
2125
$23.375 or $23.38 gross pay

6. Jo's time card is shown below. How many hours did she work on the two days shown? 9.5 Based on an hourly rate of $4.30, what was her gross pay for those two days? $40.85

Time Card	
Employee #	
Name:	
Week ending	
In	11:30 a
Out	4:00 p
In	1:00 p
Out	6:00 p

First day 16:00 out
− 11:30 in
4:30 hours worked

Second day 18 out
− 13 in
5 hours worked

Total hours worked = 9:30 or 9.5 hours

$4.30
× 9.50
21500
3870
$40.85 gross pay

7. Basing your calculations on Tom's time card below, compute his hours worked, regular pay, overtime pay (if any), and his gross pay for the week. Tom has a one-hour lunch break each day, for which he is not paid. His hourly rate is $4.00.

Total hours worked 36.25 Regular pay $145.00
Overtime pay None
Gross pay for week $145.00

Time Card	
Employee #	
Name:	
Week ending	
In	11:30 a
Out	6:00 p
In	10:00 a
Out	5:00 p
In	7:45 a
Out	12:30 p
In	1:00 p
Out	10:00 p
In	9:00 a
Out	3:00 p
In	9:00 a
Out	6:00 p

First day	18:00	out	Second day	17:00	out	Third day	12:30	out
	– 11:30	in		– 10:00	in		7:45	in
Total hours	6:30			7:00			4:45	
– Lunch	– 1:00			– 1:00			– 1:00	
Net hours	5:30			6:00			3:45	

Fourth day	22:00	out	Fifth day	15:00	out	Sixth day	18:00	out
	– 13:00	in		– 9:00	in		– 9:00	in
Total hours	9:00			6:00			9:00	
– Lunch	– 1:00			– 1:00			– 1:00	
Net hours	8:00			5:00			8:00	

First day	5:30		
Second day	6:00		
Third day	3:45		
Fourth day	8:00		
Fifth day	5:00		
Sixth day	8:00		
Total for week	36:15	hours or 36.25	hours
		× $4	per hour
		$145.00	gross pay

Technical Learning Concepts

Match each of the following terms to the appropriate definition:

b	gross pay	a. money paid to employees for labor or services performed on hourly, daily, or piece-rate basis
d	hourly wage	b. all pay added together
f	military time	c. also called time and a half pay
c	overtime (OT)	d. an established rate for each hour worked
g	piece-rate	e. amount of pay for a unit of work—pieces, hours, or days worked
e	rate	f. time determined by adding 12 to hours between noon and midnight
h	termination offense	g. a rate based on the number of units produced or finished
a	wages	h. the breaking of a company rule, for which you can be fired
i	net pay	i. pay received after deductions are subtracted from gross pay

ME I: (b)(11)(B)
Entrep: (h)(6)

Guided Practice on Salaries and Commissions

Unit VI: Assignment 18

1. Sam Hoff is working for a salary of $350.00 a week, based on a 45-hour week. During Christmas week, Sam worked 48 hours. What was his salary for that week? $350.00

2. Janet Burke is the manager of the "Missy" department at Harkins Department Store. Janet is paid $880.00 per month, plus 2% commission on net sales of her department. During December, the department sold $30,000.00 with $250.00 returns. How much was Janet's gross pay for the month? $1,475.00

$30,000	gross sales	$880	salary
– 250	returns	+ 595	commission
$29,750	net sales	$1,475	gross pay
× 0.02	commission rate		
$595.00	commission		

3. Don Gorey's quota at Evermire's Department Store is $4,000.00 per month. Don receives a salary of $925.00 per month, with a 1.5% bonus on all sales over his quota. During January, Don sold $6,000.00. What was Don's gross pay for the month of January? $955.00

$6,000	gross sales	$2,000	net sales	$925	salary
– 4,000	quota	× 0.015	bonus	+ 30	commission
$2,000	commissioned sales	10,000		$955	gross salary
		2,000			
		$30.000			

4. Neal Bacon is a salesperson at Juneuv Jewelry. Neal works on straight commission rate of 7%. During the month of November, Neal sold $19,000.00. One customer returned a $425.00 ring, and another returned a $25.00 piece of silver flatware. What was Neal's gross pay for the month of November? $1,298.50

$19,000	gross sales	$18,550	net sales
– 450	returns	× 0.07	commission rate
$18,550	net sales	$1,298.50	straight commission

5. John Alford is a salesperson for a large automobile dealership. He earns 12 1/2% straight commission, plus a draw of $550.00 based on $13,350.00 monthly sales. During May, John sold $12,350.00. What was John's gross income for that month? $2,093.75

$12,350	gross sales	$1543.75	commissions
× 0.125	commission rate	+ 550.00	draw
61750		$2,093.75	gross income for month
24700			
12350			
$1,543.750			

6. Use each of the following terms in a complete sentence.

commission—a percentage of the net sales paid to the employee
draw—money borrowed against future commissions
graduated commission—becomes greater as the net sales increase
monthly salary—a predetermined amount to be paid to an employee each month
net sales—equal to gross or total sales less returns and allowances
quota—the amount a salesperson is expected to sell
quota bonus plan—includes commissions paid on sales above and beyond quota
salary—a predetermined amount to be paid an employee for a period
salary plus—includes a percentage of net sales paid in addition to salary
semimonthly salary—a salary divided in half and paid in two parts (twice each month)

ME I: (b)(11)(B)
Entrep: (h)(6)

Independent Practice on Salaries and Commissions

Unit VI: Assignment 18

1. Harry Jones has a quota of $625.00 per week in sales, receives a salary of $200.00 a week, and is paid a commission of 5% over quota. What is his gross pay for one week if his sales were $980.00? $217.75

$980	sales	$355	commissioned sales	$200.00	salary
− 625	quota	× 0.05	commission rate	+ 17.75	commission
$355	commissioned sales	$17.75		$217.75	

2. Jack Jenkins is a car salesperson employed on a straight commission of 10% of sales. Last month he sold cars and trucks amounting to a total of $29,425.00. What was his gross pay for the month? $2,942.50

$29,425	total sales
× 0.10	commission rate
$2,942.50	gross pay

3. Tom Sewell is a traveling representative who receives a commission of 20% of sales plus a draw of $300.00 per month based on net sales of $1,000.00 per week. Last month, he sold $5,660.00. What were his gross earnings for the month? $1,432.00

$5,660	gross sales	$1,132	commission
× 0.20	commission rate	+ 300	draw
$1,132.00	commissions	$1,432	gross earnings

4. J. B. Kelly is the manager of a large wholesale distributing firm. As the chief executive, he draws an annual salary of $20,000.00 plus a bonus of 1% of the net company sales. Last year, the firm had net sales of $2,250,000.00. What were his total earnings for the year? $42,500.00

$2,250,000	net sales	$22,500	bonus
× 0.01	bonus rate	+ 20,000	salary
$22,500.00	bonus	$42,500	total earnings for year

5. Kirk Broder is the manager of the menswear department at Harkins department store. Kirk is paid $780.00 per month plus 1% commission on net sales of his department. During October the department sold $22,000.00 with $450.00 returns. How much was Kirk's gross pay for the month? $995.50

$22,000	gross sales	$21,550	net sales	$780.00	salary
− 450	returns	× 0.01	commission rate	+ 215.50	commission
$21,550	net sales	$215.50	commission	$995.50	gross pay

In the space to the left of each of the following definitions, place the letter of the matching term.

d 6. a predetermined amount to be paid to an employee each month
a 7. a percentage of net sales that is paid to an employee
g 8. commissions paid on sales above and beyond the employee's sales quota
k 9. a salary that is divided in half and paid in two parts (twice each month)
e 10. gross or total sales less returns and allowances
b 11. to borrow against future commissions
i 12. a percentage of net sales that is paid to the employee in addition to base salary
h 13. a predetermined amount to be paid to an employee each month or year
c 14. situation in which commission rate becomes greater as the net sales increase
f 15. a predetermined, specified amount a salesperson is expected to sell to be considered a productive employee

Matching terms

a. commission
b. draw
c. graduated commission
d. monthly salary
e. net sales
f. quota
g. quota bonus plan
h. salary
i. salary plus
j. gross salary

ME I: (b)(11)(B)
Entrep: (h)(6)

Guided Practice on Incentives and Deductions

Unit VI: Assignment 19

1. Complete the payroll ledger sheet below, and compute the wages for employees listed.

   This example has additional columns for overtime rates, which should be calculated at 1 1/2 times the regular rate. The records of individual days have been omitted and a weekly total substituted, to save space.

(Overtime rate is 1 1/2 regular rate)

Employee	Status Exempt	Total Hours	Hourly Rate	Regular Pay	OT Rate	OT Pay	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
Alberts, V.	S-1	20	4.20	84.00	6.30	–	84.00	6.43	3.00	2.00	11.43	72.57
Collins, J.	M-1	46	6.30	252.00	9.45	56.70	308.70	23.62	30.00	11.00	64.62	244.08

Calculations—

Alberts

20 hours × $4.20 = $84 regular and gross pay
$4.20 × 1.5 = $6.30 OT rate, but there is no overtime
$84 × 0.0765 = $6.43 F.I.C.A.
F.I.C.A., withholding, and other deductions are added to get total deductions, $11.43
$84 - $11.43 = $72.57 net pay

Collins

40 hours × $6.30 = $252 regular pay
$6.30 × 1.5 = $9.45 OT rate
6 hours × $9.45 = $56.70 overtime pay
$252 regular + $56.70 overtime = $308.70 gross pay
$308.70 × 0.0765 = $23.62 F.I.C.A.
F.I.C.A., withholding, and other deductions are added to get total deductions, $64.62
$308.70 – 64.62 = $244.08 net pay

2. Match the terms on the left to the correct definitions on the right.

__c__ bonus
__e__ F.I.C.A.
__a__ fringe benefits
__h__ P.M.'s (premium money)

a. nonmonetary compensations an employee may receive in addition to his regular earnings
b. any monies taken out of earnings before receiving them
c. extra money awarded for outstanding sales performance
d. money given to encourage greater effort or increased productivity
e. Social Security

g involuntary deductions
b payroll deductions
j payroll record
d pay incentives
k voluntary deductions
i withholding tax
f factors affecting filing status

f. whether the worker is single, married, filing separately from spouse, jointly with spouse, or as single-head-of-household
g. federal income tax and F.I.C.A.
h. money earned by selling specific merchandise or working hard-to-staff hours
i. federal income tax
j. ledger used to keep track of times worked and rates paid to different workers
k. Red Cross contributions and payroll savings plan

ME I: (b)(11)(B)
Entrep: (h)(6)

Independent Practice on Incentives and Deductions

Unit VI: Assignment 19

1. Complete the payroll ledger sheet below, and compute the wages for employees listed.

   This example has additional columns for overtime rates, which should be calculated at 1 1/2 times the regular rate. The records of individual days have been omitted and a weekly total substituted, to save space.

(Overtime rate is 1 1/2 regular rate)

Employee	Status Exempt	Total Hours	Hourly Rate	Regular Pay	OT Rate	OT Pay	Gross Pay	FICA Taxes	WH Taxes	Other Deduc	Total Deduc	Net Pay
Jerrod. P.	S-1	21	4.30	90.30	6.45	–	90.30	6.91	5.00	2.00	13.91	76.39
Samuel. O.	M-1	45	6.50	260.00	9.75	48.75	308.75	23.62	30.00	15.00	68.62	240.13

Calculations—

Jerrod

21 hours × $4.30 = $90.30 regular and gross pay
$4.30 × 1.5 = $6.45 OT rate, but there is no overtime
$90.30 × 0.0765 = $6.91 F.I.C.A.
F.I.C.A., withholding, and other deductions are added to get total deductions, $13.91
$90.30 – 13.91 = $76.39 net pay

Samuel

40 hours × $6.50 = $260 regular pay
6.50 × 1.5 = $9.75 OT rate
5 hours × $9.75 = $48.75 overtime pay
$260 regular + $ 48.75 overtime = $308.75 gross pay
$308.75 × 0.0765 = $23.62 F.I.C.A.
F.I.C.A., withholding, and other deductions are added to get total deductions, $68.62
$308.75 – $68.62 = $240.13 net pay

2. Define each of the following terms.

   bonus—a set amount of extra pay for additional sales or specific performance
   filing status—tax status indicating whether a person is single, married filing separately, married filing a joint return, or single-head-of-household
   F.I.C.A.—Federal Insurance Contributions Act, or Social Security taxes
   fringe benefits—benefits received in addition to regular earnings
   involuntary deductions—deductions which have to be taken out of gross pay
   P.M.'s (premium money)—amounts paid as incentive for selling specific items, or working hard-to-staff hours
   payroll deductions—amounts subtracted from gross pay to get net pay

payroll record—ledger used to keep track of time, rates paid, other information
pay incentives—money given to encourage greater or specific effort
voluntary deductions—deductions over which the employee has control
withholding tax—income tax subtracted from the gross pay
exemptions—taxpayer, spouse, and dependents

3. Give two examples of involuntary deductions that are taken out of a paycheck.

   Involuntary deductions include withholding tax, F.I.C.A., and, possibly, state income tax and unemployment tax.

4. Give two examples of voluntary deductions that might be taken out of a paycheck.

   Voluntary deductions include charitable contributions, employee association dues, payroll savings plans, and insurance policy premiums.

ME I: (b)(11)(C)

Guided Practice on Determining Productivity

Unit VI: Assignment 20

1. If a store desires a selling cost of 5%, what quota would it set for a salesperson receiving a total pay of $530.00? $10,600.00

10600 or $10,600
0.05 /530.00
5
30
30

2. A salesperson in a men's furnishings department received a salary of $600.00 per month plus commissions of $650.00. His net sales were $25,534.00 for the month. What was his percentage of selling cost to the store? 4.9% If the store had set a selling cost of 6%, would his cost be more productive or less productive than what was set? more productive

$600	salary
+ 650	commission
$1,250	total pay

0.0489 or 4.9%
25534 / 1250.0000
102136
228640
204272
243680
229806
13874

3. Sam Tucker and Jack Finch worked part-time in the receiving department of the Ballou Bayou Stores. They each earned $4.00 per hour. Sam processed 205 boxes in 30 hours of his first week on the job. Jack processed 175 boxes in 24 hours of his first week on the job.

How many units were processed for each dollar that Sam was paid? 1.71
How many units were processed for each dollar that Jack was paid? 1.88
Who was the more productive? Jack

Sam: $4.00 × 30 hours = $120 total pay

1.708 or 1.71 units processed
120/205.000 per $1.00
120
850
840
1000
960

Jack: $4.00 × 24 hours = $96 total pay

1.875 or 1.88 units processed
96/180.000 per $1.00
96
840
768
720
672
480
480

ME I: (b)(11)(C)

Independent Practice on Determining Productivity

Unit VI: Assignment 20

1. If a store desires a selling cost of 8%, what quota would it set for a salesperson receiving a total pay of $900.00? $11,250.00

11250
0.08/900.00
8
10
8
20
16
40
40

2. Tony at Hobby Heaven received a salary of $350.00 per month plus commissions of $834.00. His net sales were $18,534.00 for the month. What was his percentage of selling cost to the store? 6.4% If the store's goal was a selling cost of 6%, would his selling cost be more or less productive than that goal? less productive

$350 salary
+ 834 commissions
$1,184 total pay

0.0638 or 6.4%
18534/1184.00
111204
71960
55602
163580
148272
15308

3. John Adams and C.C. Pinckney worked part-time in the mailing room of a wholesaler. They each earned $4.00 per hour. John prepared 300 boxes in 30 hours of his first week on the job. C.C. prepared 240 boxes in 24 hours of his first week on the job. How many units were processed for each dollar that John was paid? 2.5 How many units were processed for each dollar that C.C. was paid? 2.5 Who was the more productive? They were equal.

John: $4 × 30 hours = $120.00 total pay

2.5 units processed per $1
120/300.0
240
600
600

C.C.: $4 × 24 hours = $96.00 total pay

2.5 units processed per $1
96/240.0
192
480
480

ME I: (b)(11)(A)
Entrep: (h)(6)

Guided Practice on Stockturn

Unit VII: Assignment 21

1. What is stock turnover rate, and how does the merchant use it?

   Stock turnover rate is an indication of how often the average stock has been sold during a period. It is used in measuring profits, setting prices, comparing perfomance of departments and stores, and deciding when and what to buy.

2. By what formula is stock turnover rate measured?

   Net sales divided by average stock equals stock turnover rate.

3. Why does a merchant measure capital turnover rate?

   Capital turnover rate shows how efficiently the investment in stock is being used.

4. What formula does a merchant use to determine capital turnover rate?

   Net sales divided by average stock at cost equals capital turnover.

5. The net sales for a year in a department were $400,000.00. The inventory at the beginning of the year was $115,000.00 at retail, and at the end of the year it was $125,000.00 retail. What was the stockturn? 3.3

   $115,000
   + 125,000
   $240,000

   240,000 ÷ 2 = 120,000

   3.3
   120000/400000.0
   360000
   40000

6. The net sales for a three-month period amounted to $375,000.00. The monthly inventories at retail were as follows:

Beginning inventory	July 1	$122,500
	July 31	97,000
	August 31	86,000
	September 30	89,500
		$395,000

   a. Find the average inventory. $98,750.00

   $395,000.00 ÷ 4 = $98,750.00 average inventory

   b. Find the stockturn for the three-month period. 3.8

$$\begin{array}{r} \underline{\quad 3.79} \text{ or } 3.8 \\ 98750/375000.00 \\ \underline{296250} \\ 787500 \\ \underline{691250} \\ 962500 \\ \underline{888750} \end{array}$$

c. Estimate the stockturn for the year. 15.2

3.8 × 4 = 15.2

d. If the average stock at cost for the period was $60,000.00, what was the capital turnover for the period? 6.25

$$\frac{\text{net sales}}{\text{average stock at cost}} = \frac{375{,}000}{60{,}000} = 6.25$$

ME I (b)(11)A)
Entrep: (h)(6)

Independent Practice on Stockturn

Unit VII: Assignment 21

1. The Melletic Company has net sales of $220,000.00 and an average inventory of $11,000.00. What would their stock turnover rate be? 20

   20
   11000/220000
   22000

2. In your boat shop you carry a line of life jackets. Your average stock of life jackets during the year was 10. During this same year, you sold 80 life jackets. What was the stock turnover rate for life jackets that year? 8

   8
   10/80

3. If the stock turnover rate on riding shorts was found to be 0.10 for an average month, what would you estimate the stock turnover rate for the year to be? 1.2

   0.10 × 12 = 1.2

4. Would you rather have a 35% profit margin with four stockturns a year, or a 20% profit margin with eight stockturns per year? 20% with 8 stockturns Why? It produces more profit.

   0.35 at 4 stockturns gives a gross profit of $1.40 for each $1.00 for a year.
   0.20 at 8 stockturns gives a gross profit of $1.60 for each $1.00 for a year.

5. If beginning inventory on April 1 was $20,000.00, on May 1 was $26,500.00, and on June 1 was $24,000.00, what was the average stock for that period? $23,500.00

$20,000	$23500
26,500	3/70500
24,000	6
$70,500	10
	9
	15
	15

6. If net sales for the year have been $225,000.00 and the average stock on hand (at cost) is $42,500.00, what was the capital turnover for that year? 5.29

5.29

42500/225000.00

212500

125000

85000

400000

382500

7. On July 1, the inventory was $32,500.00, on July 31 it was $34,600.00, on August 31 it was $29,200.00, and on September 30 it was $32,700.00. Compute the average inventory for the three-month period. $43,000.00

$32,500	$43000
34,600	3/129000
29,200	12
+ 32,700	9
$129,000	9

ME I: (b)(8)(B)
ME II: (c)(3)(D)

Guided Practice on Stock-Sales Ratio

Unit VII: Assignment 22

1. At the beginning of the month, the inventory for the glove department was $45,230.00 at retail. During the month, $32,300.00 worth of merchandise was sold and $29,240.00 worth of merchandise was received. What was the EOM inventory? $42,170.00 What would be the BOM inventory for the subsequent month? $42,170.00

$45,230	worth of gloves on hand BOM	$74,470	total value of gloves
+ 29,240	worth of gloves received during month	– 32,300	worth of gloves sold
$74,470	total value of gloves	$42,170	EOM inventory,
		and $42,170	BOM for next month

2. If the amount of net sales was $42,000.00 and BOM stock was $52,000.00, what would be the stock-sales ratio? 1.23

$$\begin{array}{r} 1.23 \\ \hline 42000/52000.00 \\ \underline{42000} \\ 100000 \\ \underline{84000} \\ 160000 \\ \underline{126000} \end{array}$$

3. If net sales for the month of January were $30,000.00 and the BOM stock was $44,000.00, what would the stock-sales ratio be? 1.46

$$\begin{array}{r} 1.46 \\ \hline 30000/44000.00 \\ \underline{30000} \\ 140000 \\ \underline{120000} \\ 200000 \end{array}$$

4. If the desired stock-sales ratio of a department is 2, how much stock should be on hand in order to sell $4,000.00 worth of merchandise during a period? $8,000.00

2 × $4,000 = $8,000

ME I: (b)(8)(B)
ME II: (c)(3)(D)

Independent Practice on Stock-Sales Ratio

Unit VII: Assignment 22

1. If the amount of net sales was $22,000.00 and BOM stock was $32,000.00, what would be the stock-sales ratio? <u>1.45</u>

```
           1.45
22000/32000.00
         22000
        100000
         88000
         120000
         110000
```

2. At the beginning of November, the inventory for the the coat department was $55,230.00 at retail. During November, $42,300.00 worth of merchandise was sold and $19,420.00 worth of merchandise was received. What was the EOM inventory? <u>$32,350.00</u> The BOM inventory for December? <u>$32,350.00</u>

$55,230	in coat department BOM	$74,650	total inventory
+ 19,420	was received in November	– 42,300	sold in November
$74,650	total inventory	$32,350	EOM inventory

3. If net sales for the month of October were $60,000.00 and the BOM stock was $74,000.00, what would the stock-sales ratio be? <u>1.23</u>

```
              1.23
60000 / 74000.00
          60000
          140000
          120000
            200000
            180000
             20000
```

4. If the desired stock-sales ratio is 3.5, how much in inventory should be on hand in order to sell $5,000.00 worth of merchandise in a period? <u>$17,500.00</u>

3.5 × $5,000 = $17,500

Guided Practice on Open-to-Buy

Unit VII: Assignment 23

1. Explain why the open-to-buy concept is an important buying tool.

   Open-to-buy keeps the buyer aware of how much money is left for purchasing at any one time, which adds flexibility to buying.

2. If planned inventory for the beginning of a month is $35,000.00, ending inventory is $37,000.00, reductions are $700.00, and planned sales are $28,000.00, what would be the planned purchases? $30,700.00

$ 28,000	planned sales
+ 37,000	ending inventory
+ 700	reductions
$65,700	needed for period
− 35,000	beginning inventory
$30,700	planned purchases

3. If inventory for the beginning of a period of one month is $10,000.00, planned ending inventory is $15,000.00, reductions are $600.00, planned sales are $8,000.00, and there is $3,000.00 on order, what would be the open-to-buy? $10,600.00

$8,000	planned sales
+ 15,000	ending inventory
+ 600	reductions
$23,600	needed for period
− 10,000	beginning inventory
$13,600	planned purchases

$13,600	planned purchases
− 3,000	on order
$10,600	open-to-buy

4. Determine the open-to-buy for each department below. Show your calculations.

	Planned purchases	Received	On order	Open-to-buy
Ladies'	$5,600.00	$1,600.00	None	$4,000.00
Men's	$3,800.00	None	None	$3,800.00

Ladies'	$5,600	planned purchases
	− 1,600	received
	$4,000	open-to-buy
Men's	$3,800	planned purchases
	− 0	in received and on order
	$3,800	open-to-buy

Independent Practice on Open-to-Buy

Unit VII: Assignment 23

1. Do this part of the plan by completing the "planned purchases" spaces. Show your calculations. Assume that reductions for each month are 5% of sales.

MONTH	Planned Retail Inventory BOM	EOM	Planned Sales	Planned reductions at 5% of sales	Planned Purchases
July	$12,778.00	$17,900.00	$4,000.00	$200.00	$9,322.00
August	$17,900.00	$15,050.00	$7,500.00	$375.00	$5,025.00
September	$15,050.00	$13,425.00	$3,550.00	$178.00	$2,103.00
October	$13,425.00	$18,300.00	$3,900.00	$195.00	$8,970.00
November	$18,300.00	$22,500.00	$10,000.00	$500.00	$14,700.00
December	$22,500.00	$10,100.00	$15,000.00	$750.00	$3,350.00

July
$4,000 sales
17,900 EOM
+ 200 reductions
$22,100 needed
− 12,778 BOM
$9,322 purchases

August
$7,500 sales
15,050 EOM
+ 375 reductions
$22,925 needed
− 17,900 BOM
$5,025 purchases

September
$3,550 sales
13,425 EOM
+ 178 reductions
$17,153 needed
− 15,050 BOM
$2,103 purchases

October
$3,900 sales
18,300 EOM
+ 195 reductions
$22,395 needed
− 13,425 BOM
$8,970 purchases

November
$10,000 sales
22,500 EOM
+ 500 reductions
$33,000 needed
− 18,300 BOM
$14,700 purchases

December
$15,000 sales
10,100 EOM
+ 750 reductions
$25,850 needed
− 22,500 BOM
$3,350 purchases

2. Determine the open-to-buy for each department below. Show your calculations.

	Planned purchases	Received	On order	Open-to-buy
Ladies'	$4,560.00	$1,600.00	None	$2,960.00
Men's	$3,975.00	None	None	$3,975.00
Children's	$5,500.00	$900.00	$1,200.00	$3,400.00
Housewares	$19,000.00	None	$12,600.00	$6,400.00
Sports	$4,500.00	$850.00	$2,025.00	$1,625.00

Ladies'	$4,560	planned purchases
	– 1,600	received
	$2,960	open-to-buy
Men's	$3,975	planned purchases
	– 0	in received and on order
	$3,975	open-to-buy
Children's	$5,500	planned purchases
	– 2,100	in received and on order merchandise
	3,400	open-to-buy
Housewares	$19,000	planned purchases
	– 12,600	on order
	$6,400	open-to-buy
Sports	$4,500	planned purchases
	– 2,875	received and on order
	$1,625	open-to-buy

3. Define *planned purchases* and *open-to-buy,* and tell how they relate to each other.

Planned purchases is the amount of merchandise a merchant plans to buy for a period. Open-to-buy is the amount of merchandise that still can be bought at a specific date during the period if the plan is followed. Planned purchases minus receipts during the period and merchandise on order at a certain date gives the open-to-buy figure that can be used.

ME I: (b)(11)(A)
ME II: (c)(3)(B)(C)

Guided Practice on the Merchandise Plan

Unit VIII: Assignment 24

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	$80,000	$60,000	$40,000	$180,000
SALES	2. Planned +10%	$88,000	$66,000	$44,000	$198,000
	3. Actual				
	B				
RETAIL	4. Last year	$160,000	$120,000	$80,000	
STOCK	5. Planned	$176,000	$132,000	$88,000	
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%	$4,000	$3,000	$2,000	
TIONS	8. Planned 5%	$4,400	$3,300	$2,200	
% sales	9. Actual				
	D				
PUR-	10. Last year	$44,000	$23,000		
CHASES	11. Planned	$48,400	$25,300		
IN $	12. Actual				

2. Figure the planned markup if merchandise to be sold for $100,000.00 costs $64,000.00.

$$\frac{\$100{,}000 - \$64{,}000}{\$100{,}000} = \frac{\$36{,}000}{\$100{,}000} = 0.36 \text{ or } 36\%$$

Use terms from this list to fill in the blanks for the statements that following:

inventory analysis
markdowns
secondary research
4-5-4 calendar

shrinkage
merchandise plan
primary research
marketing mix

employee and special discounts
sales analysis
assortment planning
markup

3. Assortment planning is breaking down the money to be spent into categories.
4. Inventory analysis is a close look at present stocks to determine their adequacy in meeting the needs, wants, and demands expressed in the sales analysis.

5. The 4-5-4 calendar is a way of making certain each month in a 13-week quarter begins with a Sunday and ends with a Saturday.
6. Primary research is research conducted by the store or person who will use it.
7. The marketing mix provides a balance of product or service, price, place, and promotional activity.
8. Markdowns are reductions in price from the original prices for items.
9. Markup is the amount that is added to the cost of the merchandise to determine the retail price.
10. A merchandise plan is a plan that aids the buyer in deciding how much to buy at one time.
11. A sales analysis is an analysis of past sales to determine customer needs, wants, and buying habits.
12. Secondary research provides facts gathered by someone other than the person using them at the time.
13. Shrinkage covers loss due to employee theft, pilferage, or bookkeeping errors.
14. Employee and special discounts are additional reductions in the retail value of inventory.

ME I: (b)(11)(A)
ME II: (c)(3)(B)(C)

Independent Practice on the Merchandise Plan

Unit VIII: Assignment 24

1. Complete the following merchandise plan for January and February of both years using the data already provided on the plan.

Merchandise Plan for January-March for Mo-Show-Co.

RECOMMENDED STOCK-SALES RATIO—2/1 MARGIN GOAL—30%

Sections		January	February	March	Period
	A				
	1. Last year	$100,000	$80,000	$60,000	$240,000
SALES	2. Planned + 10%	$110,000	$88,000	$66,000	$264,000
	3. Actual				
	B				
RETAIL	4. Last year	$200,000	$160,000	$120,000	
STOCK	5. Planned	$220,000	$176,000	$132,000	
(BOM)	6. Actual				
	C				
REDUC-	7. Last year 5%	$5,000	$4,000	$3,000	
TIONS	8. Planned 5%	$5,500	$4,400	$3,300	
% sales	9. Actual				
	D				
PUR-	10. Last year	$65,000	$44,000		
CHASES	11. Planned	$71,500	$48,400		
IN $	12. Actual				

2. Figure the planned markup if merchandise to be sold for $180,000.00 costs $64,000.00.

$$\frac{\$180,000 - \$64,000}{\$180,000} = \frac{\$116,000}{\$180,000} = 0.6444 \text{ or } 64.4\%$$

Fill in the blanks to make the following statements correct:

3. Breaking down the money to be spent into categories is assortment planning.
4. Inventory analysis provides a close look at present stocks to determine their adequacy in meeting the needs, wants, and demands expressed in the sales analysis.
5. A way of making certain each month in a 13-week quarter begins with a Sunday and ends with a Saturday is called a 4-5-4 calendar.
6. Research conducted by the store or person who will use it is called primary research.

7. A balance of product or service, price, place, and promotional activity is provided by a good marketing mix.
8. Reductions in price from the original prices for items are called markdowns.
9. The markup is the amount that is added to the cost of the merchandise to determine the retail price.
10. A merchandise plan aids the buyer in deciding how much to buy at one time.
11. Sales analysis is an analysis of past sales to determine customer needs, wants, and buying habits.
12. Secondary research involves facts gathered by someone other than the person using them at the time.
13. Shrinkage includes loss due to employee theft, pilferage, or bookkeeping errors.
14. Employee and special discounts are additional reductions in the retail value of inventory.

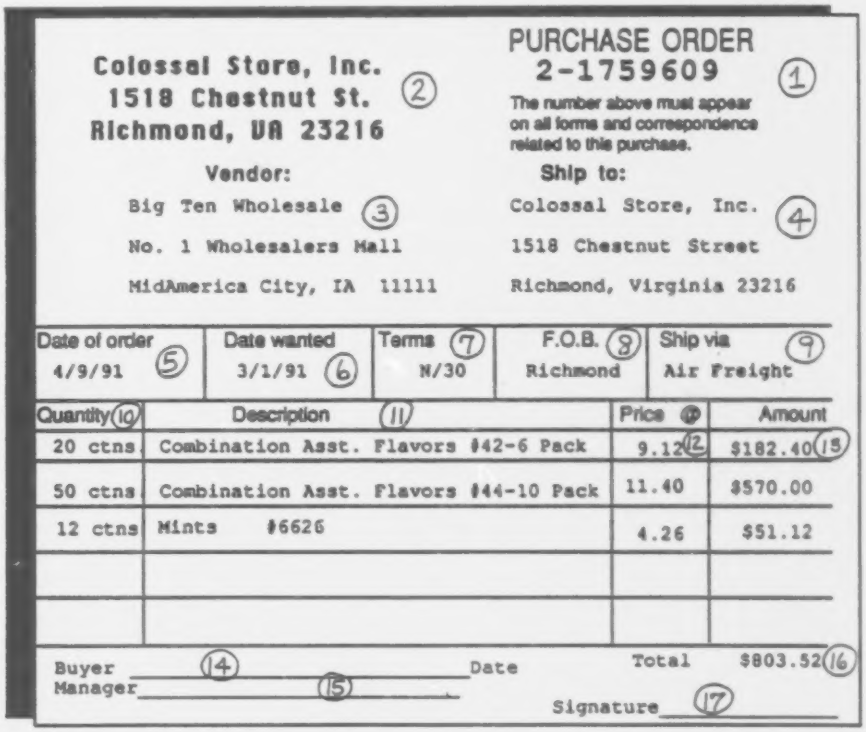
ME I: (b)(11)(B)

Guided Practice on Purchase Orders

Unit VIII: Assignment 25

Find the following information on the purchase order shown below. Place the labeling number beside each one:

(1) A unique number used only for each particular order. It helps keep track to determine if any orders are missing.
(2) Merchant buying the order
(3) Vendor's name and address
(4) Address to ship merchandise to
(5) Date the order was placed
(6) Date by which merchandise should be received
(7) Information on when payment is due, and discounts allowable or expected
(8) The point to which merchandise will be shipped free
(9) How merchandise is to be shipped
(10) Number in which each item is to be shipped
(11) Description of merchandise
(12) The price per unit shipped
(13) The extension obtained by multiplying quantity times the price per unit
(14) Name of person who originated the order
(15) Name of person who approved the order
(16) How much the merchandise cost
(17) Signature—of person responsible for the order



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216 ②

PURCHASE ORDER
2-1759609 ①
The number above must appear on all forms and correspondence related to this purchase.

Vendor:
Big Ten Wholesale ③
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:
Colossal Store, Inc. ④
1518 Chestnut Street
Richmond, Virginia 23216

Date of order ⑤	Date wanted ⑥	Terms ⑦	F.O.B. ⑧	Ship via ⑨
4/9/91	3/1/91	N/30	Richmond	Air Freight

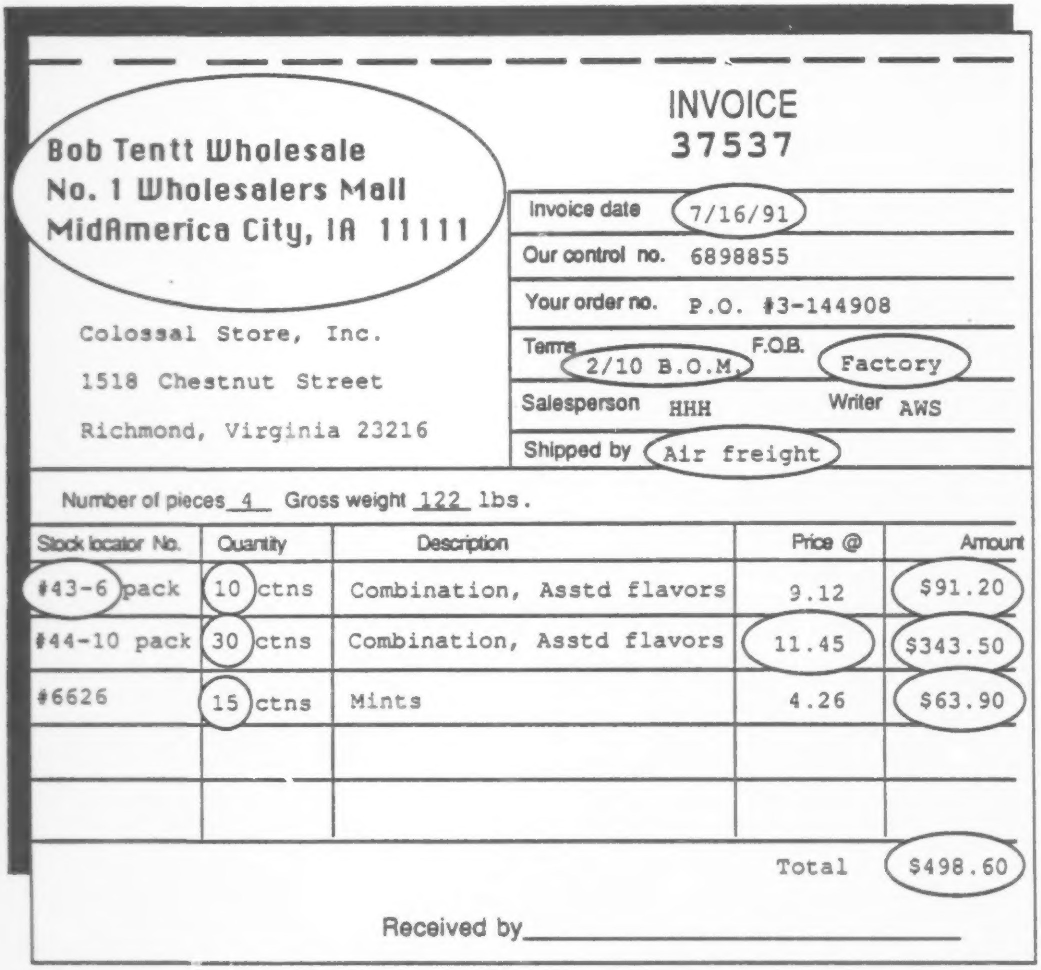
Quantity ⑩	Description ⑪	Price @	Amount
20 ctns	Combination Asst. Flavors #42-6 Pack	9.12 ⑫	$182.40 ⑬
50 ctns	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns	Mints #6626	4.26	$51.12

Buyer ⑭ Date
Manager ⑮
Total $803.52 ⑯
Signature ⑰

Independent Practice on Purchase Orders

Unit VIII: Assignment 25

1. Check the following invoice against the purchase order to ensure accuracy in billing. Circle any discrepancies on both forms. List each mistake below, and tell what the possible result of it is.



Bob Tentt Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

INVOICE
37537

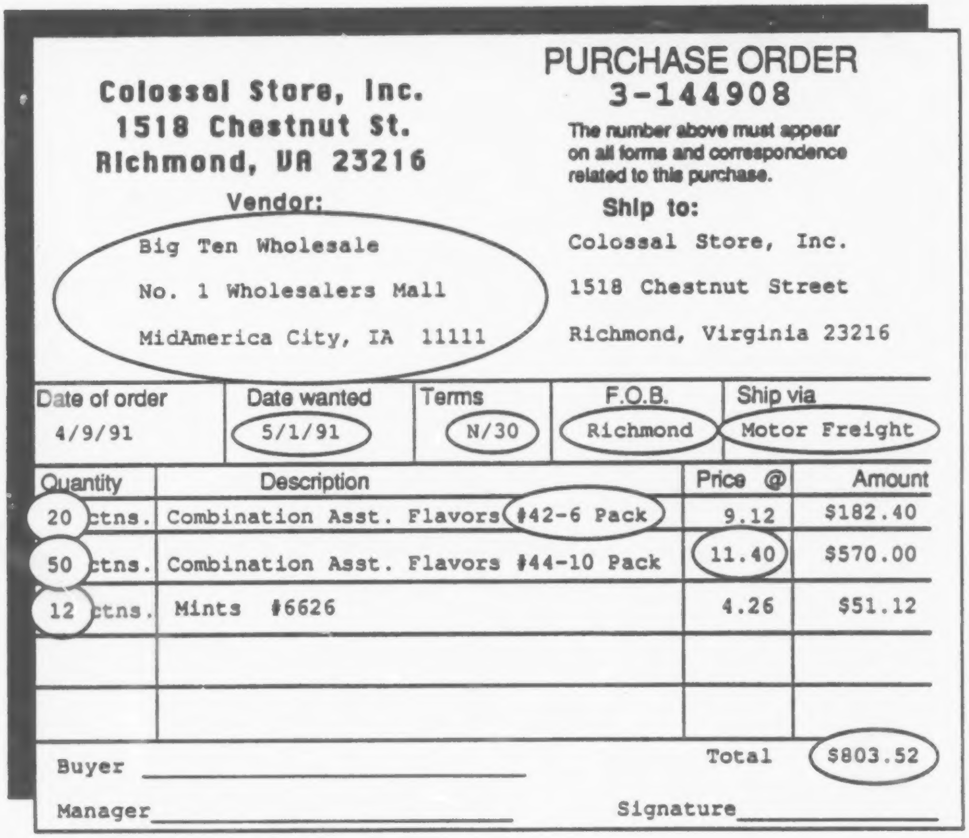
Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Invoice date 7/16/91
Our control no. 6898855
Your order no. P.O. #3-144908
Terms 2/10 B.O.M. F.O.B. Factory
Salesperson HHH Writer AWS
Shipped by Air freight

Number of pieces 4 Gross weight 122 lbs.

Stock locator No.	Quantity	Description	Price @	Amount
#43-6 pack	10 ctns	Combination, Asstd flavors	9.12	$91.20
#44-10 pack	30 ctns	Combination, Asstd flavors	11.45	$343.50
#6626	15 ctns	Mints	4.26	$63.90
			Total	$498.60

Received by____________________________



Colossal Store, Inc.
1518 Chestnut St.
Richmond, VA 23216

PURCHASE ORDER
3-144908

The number above must appear on all forms and correspondence related to this purchase.

Vendor:

Big Ten Wholesale
No. 1 Wholesalers Mall
MidAmerica City, IA 11111

Ship to:

Colossal Store, Inc.
1518 Chestnut Street
Richmond, Virginia 23216

Date of order	Date wanted	Terms	F.O.B.	Ship via
4/9/91	5/1/91	N/30	Richmond	Motor Freight

Quantity	Description	Price @	Amount
20 ctns.	Combination Asst. Flavors #42-6 Pack	9.12	$182.40
50 ctns.	Combination Asst. Flavors #44-10 Pack	11.40	$570.00
12 ctns.	Mints #6626	4.26	$51.12
		Total	$803.52

Buyer ______________________________

Manager______________________________ Signature________________

The discrepancies, reading from top to bottom of the purchase order, include—

(1) Vendor name on the purchase order is different from that on invoice. Payment might be made incorrectly.
(2) The date merchandise was wanted was two months earlier than the invoice date, so merchandise was probably late.
(3) Terms on the purchase order differ from those on the invoice.
(4) F.O.B. addresses differ, and would affect cost charged merchant for transportation.
(5) Method of shipment differs, again affecting cost charged for transportation.
(6) All three quantities differ, so wrong amount of merchandise is being delivered.
(7) Stock locator numbers for item #42-6 pack (or #43-6 pack) differ, so wrong item was probably delivered.
(8) Price @ differs on second item, affecting what is charged.
(9) For one reason or another, all three extended amounts and the total charged disagree between documents. Correction will be needed.

2. Define *purchase order*.

A purchase order is a written contract sent to a supplier to order merchandise.

3. List fifteen pieces of information that should be included on a purchase order.

This can be any fifteen items from the following list:

(1) Purchase order number
(2) Merchant buying the order
(3) Vendor's name and address
(4) Address to ship merchandise to
(5) Date the order was placed
(6) Date by which merchandise should be received
(7) Terms of payment
(8) F.O.B. location
(9) Ship via
(10) Quantity
(11) Description of merchandise
(12) Price @
(13) Amount
(14) Buyer
(15) Manager
(16) Total
(17) Signature

ME I: (b)(9)(C)
ME II: (c)(3)(A)

Guided Practice on Pricing Structures

Unit VIII: Assignment 26

Each of the following items is listed with a fixed price. Compute extensions for each.

1. Sweaters are priced at $25.50 each. Joan buys a blue one, a red one, and a black one. How much does Joan owe? $76.50

2. The coach at Central is buying socks for the track team. He needs 25 pairs. The socks are $2.25/pair with a 15% discount to schools and churches. How much must he pay? $47.82

$2.25	each pair
× 25	pairs
1125	
450	
$56.25	price with no discounts
× 0.85	accounts for a 15% discount
28125	
45000	
$47.8125	or $47.82 using the school discount

3. The engagement ring that Tom and Sue wanted was not available in the retail store. Mrs. Longdon found exactly what they wanted in the Serpco catalog for $2,800.00, and she offered to order it for them. She promised delivery within two weeks. The ring was quadruple keystoned. How much did the store pay for the ring? $700.00 What was the pricing used? keystone

$2800/4 = $700

ME I: (b)(9)(C)
ME II: (c)(3)(A)

Independent Practice on Pricing Structures

Unit VIII: Assignment 26

Find the terms that match the definitions below. The terms may be vertically, horizontally, or diagonally placed.

```
C L I S R I B A M K E P O H F S A M I X A B C X Z P R I N H D
L J Y V A R I A B L E P R I C I N G H P O I U Y T R E W Q A I
Z X C V B F M L K J K L P O I U Y T R E W Q P R I C A S D R E
F I X N O B I Q W E R T Y U I O P E L V A R I R B A S O I U Y
T E C A L K E X Q G H I G N M K E Y S T O N E D P R I C E S O
N H Y T G B V F E W S X Z A Q P L O K I B J U Y H N H T G B V
F R E D C D E W S D X Z A Q A S D F G A H J K L P O I U Y T R
E W Q M V B C V Z X P S A D S F D G S P O K I J U H Y G T F R
G D E S W A K E Y Z M R I B G V F E P L O K I J U H Y G T N B
V E N D I N G C D E A N I A D I P B O C A L I C A M J L F V Y
N F E D E R A L E X P R E C S R I C E B A S B H J U T E C M P
F I K E Y E N O T S E C R P I C E B A I R A V E S B L U B D Y
T S L X M C N D K F K F J C G N Q P W O W I E U E Y R T W L Z
P M Q M W X O S I B T K E C F D G I L L I O B L E S S O V E R
```

1. This means that the price follows changes in federal guidelines, the international market, or stock market activity. base price

2. This means that prices are the same for every customer, regardless of the quantity bought. fixed pricing

3. The price is marked up by a factor in a published form to help retailers price the product to the consumer and at the same time know what the product will cost them. keystoned prices

4. This means that a discount is given for quantity, time purchased, circumstances of the sale, and might even be negotiable between buyer and seller. variable pricing

Compute the prices for the following situations, and indicate the pricing structure involved by circling one of the choices provided.

5. Chairs are priced at $20.00 each. The discount price break is 10% at 100 and 20% at 500. Caty High School is buying 600 chairs. How much will the 600 chairs cost? $9,800.00

$20 × 100 × 0.90 = $1,800
+ $20 × 500 × 0.80 = $8,000
$9,800

a. fixed
b. variable
c. keystoned
d. base priced

6. A gold chain is priced $285.00 at $400.00 gold. Today gold is priced at $440.00. Will the chain's price remain the same, increase, or decrease? increase What is the pricing used?

a. fixed
b. variable
c. keystoned
d. base priced

7. An artificial Christmas tree is priced at $65.00. The day after Christmas, Mrs. Konally was admiring the tree. The seasonal department manager mentioned that if she wanted the tree he could let her have it at 40% off. Mrs. Konally said she would take it if he would let her have it at 50% off. The manager agreed. How much did Mrs. Konally pay for the tree? $32.75 What was the pricing system?

$65.50 × 0.50 = $32.75

a. fixed
b. variable
c. keystoned
d. base priced

8. Mr. Heggerd's jewelry store offers a line of diamond pendants that retail for $450.00-$2,100.00. Mr. Heggerd buys the pendants for $150.00-$700.00. What is the keystone? triple

9. Senior rings were originally priced to Regin High School for $250.00, based on $400.00 gold. The price of gold jumped to $430.00. What would the rings cost with this increase? $268.75 What is the pricing structure?

430/400 = 1.075, so the increase was 0.075 or 7.5%, and the new price should be 1.075 the original.
$250 × 1.075 = $268.75 is the new price

a. fixed
b. variable
c. keystoned
d. base priced

10. The Blufftown Little League needs 40 baseball bats for the spring season. Chalston has bats for $15.00/ea. The coach found that he could order the bats from Frigley wholesalers for $11.00 each and decided to do so. How much were the bats? $440.00

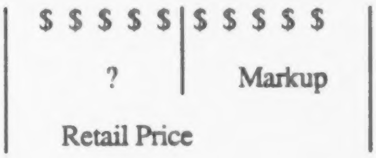
$11 × 40 = $440

ME I: (b)(11)(A)

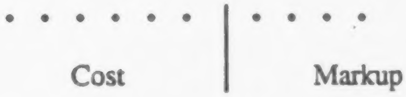
Guided Practice on Markup

Unit IX: Assignment 27

1. The retail price (selling price) should always be considered 100%.
2. Given the following diagram, what is the unnamed portion of the retail price in ($) dollars called? cost



3. Given the following diagram, what percentage of the marks (•) are markup? 40%



4. Ms. Snow paid $5.00 for each canvas in her art store. She knew that her overhead, or operating expenses, ran approximately 28%, and she wanted to make about 12% net profit. What will she need to mark each canvas at retail? $8.33

   12% + 28% = markup percentage of 40%

   $\frac{\$5}{0.60} = \$8.33$

5. The selling price of teakettles is $32.50. The markup is 42%. How much of the price is markup in dollars? $13.65 What percentage of the price is cost? 58%

   $32.50 × 0.42 = $13.65

   100% – 42% = 58% cost

ME I: (b)(11)(A)

Independent Practice on Markup

Unit IX: Assignment 27

1. Mr. Warren wants to make a \$1.00 profit on each of the doll tables he sells. The tables cost him \$10.00 each. His overhead is \$2.50/table. What would the selling price be? \$13.50 How much would his markup be for each table in dollars? \$3.50 In percentage? 26%

   \$1.00 + 2.50 + 10.00 = \$13.50 selling price

   $\frac{\$3.50}{\$13.50} = 0.259$ or 26%

2. An item is sold for \$30.00. The overhead expenses run \$6.00 and the cost is \$6.30. What is the net profit (in dollars) on this item? \$17.70 What is the markup percentage? 79%

   \$30.00 retail – 12.30 in overhead and costs = \$17.70 net profit
   \$17.70 + 6.00 = \$23.70 markup

   $\frac{\$23.70}{\$30.00} = 0.79$ or 79%

3. If a tennis racket costs a merchant \$32.00 and the markup is \$8.00, what is the percentage markup based on retail? 20% What is the percentage of cost based on retail? 80%

   \$32.00 + 8.00 = \$40.00 retail price

   $\frac{8}{40} = 0.20$ or 20% markup

   $\frac{32}{40} = 0.80$ or 80%

4. If an item sells for \$27.00 and the markup is 44%, what is the amount of the markup? \$11.88 What is the cost of the item? \$15.12

   \$27 × 0.44 = \$11.88 markup
   \$27.00 – 11.88 = \$15.12 cost

5. If the cost of an item is \$36.00 and that cost is 55%, what is the markup percentage of the item? 45% What is the markup in dollars? \$29.45 What does the item retail for? \$65.45

   $\frac{36}{0.55} = \$65.45$ retail price

   \$65.45 × 0.45 = \$29.45, markup in dollars

6. If the cost of an item is \$50.00 and the markup is 41%, what is the retail price of that item? \$84.75

$$\frac{50}{0.59} = \$84.745 \text{ or } \$84.75 \text{ retail price}$$

7. If the markup on an item is 35% and the cost is \$15.00, what is the retail price? \$23.08

$$\frac{15}{0.65} = \$23.076 \text{ or } \$23.08 \text{ retail price}$$

8. If the cost percentage of an item is 53% and the cost is \$22.00, what is the retail price? \$41.51

$$\text{retail price} = \frac{\text{cost } \$}{\text{cost } \%} = \frac{\$22}{0.53} = \$41.509 \text{ or } \$41.51$$

9. If the selling price of an item is \$60.00 and the cost is \$40.00, what is the percentage markup based on retail? 34%

$$\$60 - 40 = \$20 \text{ markup} \quad \frac{20}{60} = 0.333 \text{ or } 34\%$$

10. The selling price of item A is \$20.00, and the markup is \$10.00. The retail price of item B is \$12.00, and the markup is \$8.00. What is the markup percentage for item A? 50% What is the markup percentage for item B? 67%

$$\text{Item A} \quad \frac{10}{20} = 0.50 \text{ or } 50\%$$

$$\text{Item B} \quad \frac{8}{12} = 0.666 \text{ or } 67\%$$

ME I: (b)(11)(A)
ME II: (c)(3)(A)

Guided Practice on Margins and Profits

Unit IX: Assignment 28

1. On which basis (cost or retail) is margin usually figured? retail

2. If a key chain costs \$3.00, what would be the selling price if a 40% margin on selling price is desired? \$5.00

$$\frac{\text{cost}}{100\% - \text{margin}} = \text{selling price}$$

$$\frac{\$3.00}{0.60} = \$5.00$$

3. A golf bag is offered to a pro shop at the country club at a cost of \$16.50. If the shop takes a 67% margin on cost, what will be the selling price of the golf bag? \$50.00

$$\frac{\$16.50}{0.33} = \$50.00$$

4. The Village Drug Store has a pricing policy that cost must always be 66% of selling price. What will be the selling price of a toothbrush that has a cost price of \$0.47? \$0.71

This equation was adapted from above

$$\frac{\text{cost }\$}{\text{cost }\%} = \text{selling price}$$

$$\frac{\$0.47}{0.66} = \$0.71$$

Match the following terms to the correct definitions:

__c__ 5. selling price
__b__ 6. gross margin
__e__ 7. operating expenses
__d__ 8. net profit

a. marking an item to the nearest appointed selling price in a prescribed price line
b. the difference between selling price and cost of the merchandise
c. final price at which merchandise is to be sold
d. what is left after operating expenses are subtracted from gross margin business, other than cost of merchandise
e. all the expenditures that would be required to run a business, other than cost of merchandise

ME I: (b)(11)(A)
ME II: (c)(3)(A)

Independent Practice on Margins and Profits

Unit IX: Assignment 28

1. An item was purchased by a store at a cost of $60.00 and placed in stock at a retail price of $110.00. However, the item did not sell for the original amount and had to be marked down to $95.00 before it finally sold. What was the initial margin in dollars? $50.00 What was the initial margin in percent? 46% What was the margin in dollars and percent when the item was marked down to $95.00? $35.00 and 37%

   Initial margin: $110 – 60 = $50 initial margin
   $50/110 = 0.454 or 46%
   Marked down margin: $95 – $60 = $35 margin
   $35/$95 = 0.368 or 37%

2. If a billfold costs $30.00, what would be the selling price if a 40% margin on selling price is desired? $50.00

$$\frac{\$30}{100\% - 40\%} = \frac{\$30}{0.60} = \$50$$

3. A catcher's mitt is offered to a sporting goods store at the mall at a cost of $25.50. If the shop takes a 67% margin on cost, what will be the selling price of the mitt? $77.27

$$\frac{\text{cost in \$}}{100\% - \text{margin}} = \frac{\$25.50}{0.33} = \$77.27$$

4. The Bark and Purr Pet Shop has a pricing policy that cost must always be 65% of selling price. What will be the selling price of a dog collar that has a cost price of $0.98? $1.51

$$\frac{\text{cost in \$}}{100\% - \text{markon}} = \text{selling price} = \frac{\$0.98}{0.65} = \$1.507 \text{ or } \$1.51$$

5. The new line of ice skates costs Mercer's $89.50 per pair. If Mercer's desires a 43% margin on the skates, what would the selling price be? $157.02

$$\frac{\$89.50}{0.57} = \$157.02$$

6. Cost + margin = retail price (selling price)

7. Many people complain that the margin is too high on goods. Explain why a margin of 45% does not necessarily mean that the merchant is making $0.45 profit on every dollar's worth of goods sold.

   The merchant also has to pay all expenses for operating the business.

Guided Practice on Break-Even Point

Unit IX: Assignment 29

1. Is the amount paid to purchase an item of merchandise a fixed cost or a variable cost? variable
2. Are the salaries paid to operate a department in a store fixed costs or variable costs? fixed
3. A plant shop buys cactus plants at $6.80 per item. Retail price for the plants is set at $11.80 each. The cactus plants are also expected to pay fixed costs totaling $2,000.00 for the department.

   How much money is available from the sale of each plant to go towards meeting fixed expenses and profit? $5.00

   $11.80 – $6.80 = $5.00 per plant for fixed expenses and profit

   How many plants will have to be sold to meet fixed expenses? 400

   $2,000 ÷ 5 = 400 plants that must be sold to meet all fixed expenses and begin to make a profit

4. Complete the graph shown using the following information, then interpret your results:

   Management expects to sell 150 units at $80.00 each, retail price.
   The fixed costs for the department are $4,000.00 for the month.
   The only variable cost is that for buying the merchandise, and it is 40% of retail price.

   First, do the calculations and answer these questions:

   (1) If 150 units are sold, what will the total revenue be? $12,000.00

   $80 × 150 = $12,000

   (2) If 150 units are sold, what will the total variable costs be? $4,800.00

   $32 × 150 = $4,800

   (3) If 150 units are sold, what would the total of all costs, fixed and variable, be? $8,800.00

   $4,800 + 4,000 = $8,800

   (4) How much is available from selling each unit for meeting fixed costs? $48.00

   $80 – 32 = $48

5. Using your answers to those questions, complete the graph.

Draw the total revenue line from the 0 point at the left to the expected total revenue point at the right.

Draw the fixed costs line horizontally from left to right on the chart.

Draw a sloped line to represent total costs. It goes from the fixed costs line at the left to the calculated total costs point for 150 units at the right.

6. Interpret your chart to answer these questions. Then do the calculations to check your interpretation.

   A. Approximately how many units have to be sold to break even? 80
   Mathematically, what is the break-even point? 83.333

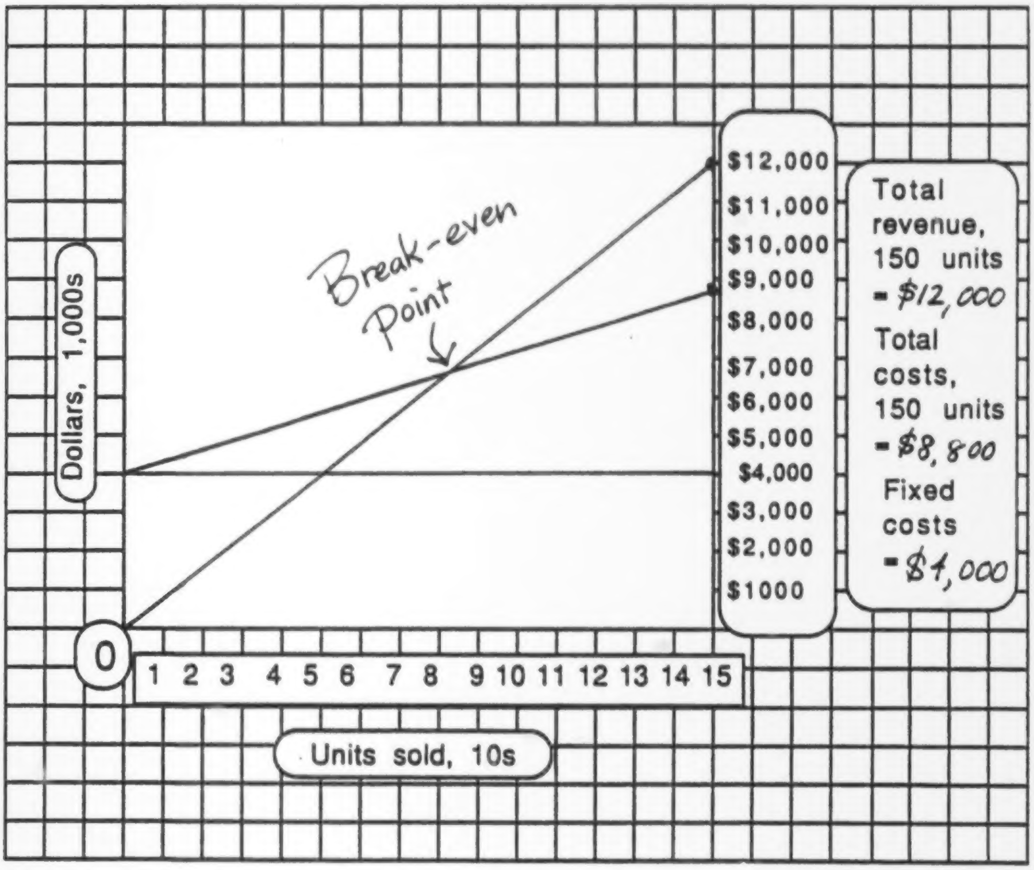
   $4,000 ÷ 48 = 83.333

   B. What is the profit to be expected if all 150 units are sold? $3,200.00

   $12,000 revenues – $8,800 total costs = $3,200 profit

   C. What will the profit be if only 120 units are sold? $1,760.00

   $9,600 – ($3,840 variable costs + $4,000 fixed costs) = profit
   $9,600 – $7,840 = $1,760 profit



ME I: (b)(11)(A)
ME II: (c)(3)(A)

Independent Practice on Break-Even Point

Unit IX: Assignment 29

1. A men's store buys socks at $3.00 per pair. Retail price for a pair of socks is set at $4.50. The socks are also expected to pay fixed expenses totaling $450.00.

   A. How much money is available from each pair to go towards meeting fixed expenses and profit? $1.50

   $4.50 – 3.00 = $1.50 per pair for fixed expenses and profit

   B. How many pairs will have to be sold to meet fixed expenses? 300

   $450 ÷ 1.50 = 300 pairs that must be sold to meet all fixed expenses and begin to make a profit

2. Complete the graph shown using the following information, then interpret your results.

   Management expects to sell 150 units at $80.00 each, retail price.
   The fixed costs for the department are $2,000.00 for the month.
   The only variable cost is that for buying the merchandise, and it is 50% of retail price.

   A. First, do the calculations and answer these questions:

   (1) If 150 units are sold, what will the total revenue be? $12,000.00

   $80 × 150 = $12,000

   (2) If 150 units are sold, what will the total variable costs be? $6,000.00

   $40 × 150 = $6,000

   (3) If 150 units are sold, what would the total of all costs, fixed and variable, be? $8,000.00

   $6,000 + 2,000 = $8,000

   (4) How much is available from selling each unit for meeting fixed costs? $40.00

   $80 – 40 = $40

   B. Using your answers to those questions, complete the graph.

   Draw the total revenue line from the 0 point at the left to the expected total revenue point at the right.
   Draw the fixed costs line horizonally from left to right on the chart.
   Draw a sloped line to represent total costs. It goes from the fixed costs line at the left to the calculated total costs point for 150 units at the right.

C. Interpret your chart to answer these questions. Then do the calculations to check your interpretation.

(1) Approximately how many units have to be sold to break even? 50 Mathematically, what is the break-even point? 50 units

$2,000 ÷ 40 = 50 units

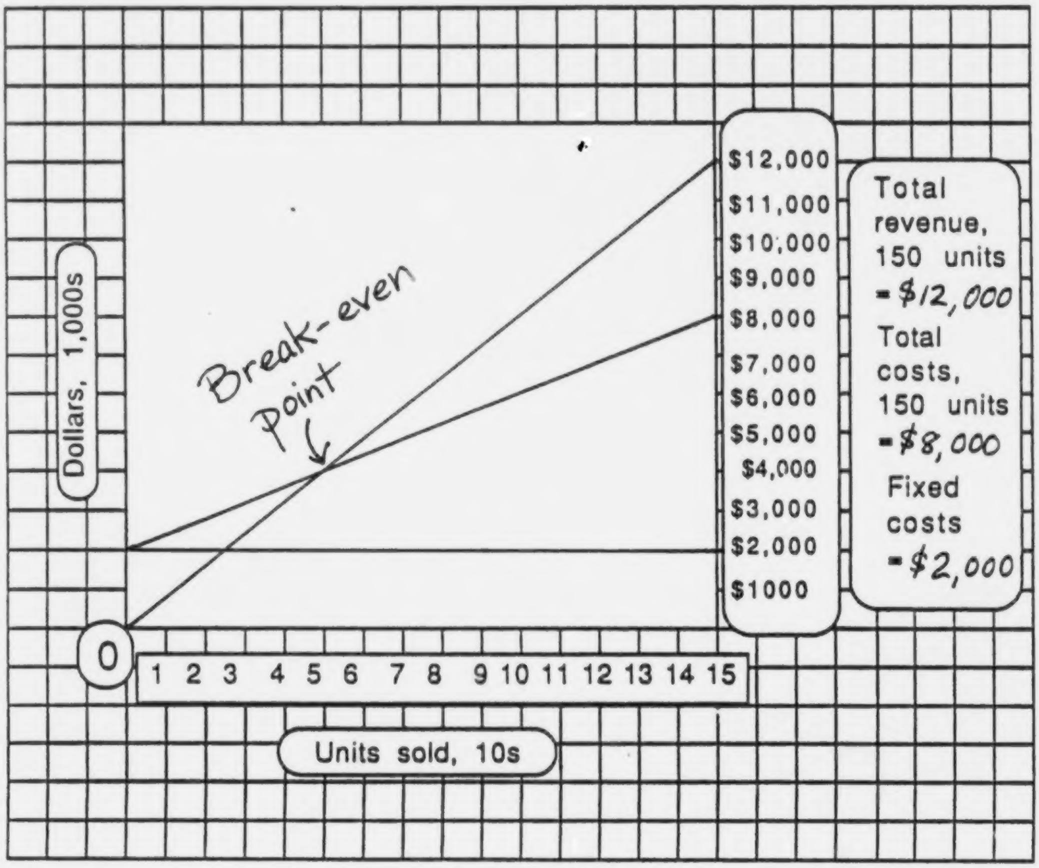
(2) If all 150 units are sold, what will the profit be? $4,000.00

$12,000 – 8,000 = $4,000

(3) If only 100 units are sold, what would the profit be? $2,000.00

$8,000 – ($2,000 + $4,000) = profit

$8,000 – 6,000 = $2,000 profit



Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Guided Practice on Income Statement

Unit X: Assignment 30

Killian's sales for the first half of the year were $116,666.68. They were $233,333.32 for the second half of the year. They had allowed $1,200.00 in discounts for nonprofit organizations, and had received $6,800.00 in returned merchandise.

Killian's began the year with $102,000.00 in inventory, purchased an additional $150,000.00 worth of merchandise. During the year they returned $2,500.00 worth of merchandise to vendors and ended the year with $88,000.00 worth of merchandise in inventory.

Since Killian's has the benefit of a great deal of cooperative advertising, their advertising budget was a low $2,800.00, but their payroll amounted to $129,000.00 for the year. They paid a yearly rent rate of $16,000.00 and street service $40.00 per month to sweep the parking lot. Their utilities averaged $160.00 per month.

In addition to their sales revenue, Killian's received $40,550.00 for rental of other property and was able to negotiate the sale of $20,000.00 of their waste materials to a nearby pig farm.

On the form provided, complete Killian's income statement for year.

Killian's Supply
Income Statement
For the Year Ending December 31, 19__

Operating Income			
1. Sales	$350.000		
2. Less returns, discounts, allowances	$8.000		
3. = Net sales		$342.000	
4. Less cost of goods sold		$161.500	
5. = GROSS MARGIN		$180.500	
Operating Expenses			
6. Employee compensations	$129.000		
7. Rent	$16.000		
8. Utilities	$1.920		
9. Advertising expense	$2.800		
10. Property upkeep	$480		
11. = TOTAL OPERATING EXPENSE		– $150.200	
12. NET OPERATING INCOME			$30.300
Other Income			
13. Property rental		$40.550	
14. Waste materials sale		$20.000	
15. = TOTAL OTHER INCOME			$60.550
16. NET INCOME			$90.850

Calculations and Sources of Information

Sales or gross sales comes from records

$116,666.68 + 233,333.32 = $350,000 sales

Gross sales – returns, allowances, discounts = **net sales**

$350,000 – 8,000 = $342,000 net sales

(beginning inventory + purchases) – (ending inventory + returned merchandise and discounts) = **cost of goods sold**

($102,000 + 150,000) – ($2,500 + 88,000) = $161,500 cost of goods sold

Net sales – cost of goods sold = **gross margin**

$342,000 – 161,500 = $180,500 gross margin

Gross margin – total operating expenses = **net operating income**

$180,500 – 150,200 = $30,300 net operating income

Other income comes from records

$40,550 + 20,000 = $60,550 other income

Other income + net operating income = **net income**

$60,550 + 30,300 = $90,850 net income

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Independent Practice on Income Statement

Unit X: Assignment 30

Grayco's sales for the year were $325,000.00. They had allowed $1,000.00 in discounts for nonprofit organizations, and had received $2,005.00 in returned merchandise. Grayco began the year with $98,000.00 in inventory, purchased an additional $150,000.00 worth of merchandise. They ended the year with $98,000.00 worth of merchandise in inventory.

Grayco had an advertising budget of $2,800.00 local and $3,200.00 national. Their payroll amounted to $98,000.00 for the year. They paid a yearly property tax of of $3,300.00; and their utilities averaged $400.00 per month. Property upkeep was $8,000.00 for the year.

In addition to their sales revenue, Grayco received $5,000.00 per quarter for rental of other property and were able to negotiate the sale of $600.00 per month for their waste materials.

On the form provided, complete Grayco's income statement.

Grayco
Income Statement
For the Year Ending December 31, 19__

Operating Income				
1.	Sales	$325,000		
2.	Less returns, discounts, allowances	$3,005		
3.	= Net sales		$321,995	
4.	Less cost of goods sold		$150,000	
5.	= GROSS MARGIN		$171,995	
Operating Expenses				
6.	Employee compensations	$98,000		
7.	Property tax	$3,300		
8.	Utilities	$4,800		
9.	Advertising expense	$6,000		
10.	Property upkeep	$8,000		
11.	= TOTAL OPERATING EXPENSE		– $120,100	
12.	NET OPERATING INCOME			$51,895
Other Income				
13.	Total rental income		$20,000	
14.	Sale of waste materials		$7,200	
15.	= TOTAL OTHER INCOME			$27,200
16.	NET INCOME			$79,095

Calculations and Sources of Information

Sales or gross sales comes from records

$325,000

Gross sales – returns, allowances, discounts = **net sales**

$325,000 – 3,005 = $321,995

(beginning inventory + purchases) – (ending inventory + returned merchandise and discounts) = **cost of goods sold**

($98,000 + 150,000) – 98,000 = $150,000

Net sales – cost of goods sold = **gross margin**

$321,995 – 150,000 = $171,995

Gross margin – total expenses = **net operating income**

$171,995 – 120,100 = $51,895

Other income comes from records

$20,000 + 7,200 = $27,200

Other income + net operating income = **net income**

$27,200 + 51,895 = $79,095

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Guided Practice on Balance Sheets

Unit X: Assignment 31

Assume that R. M. Markins has the following assets and liabilities and wishes to prepare a balance sheet in order to get a personal loan from a bank. As of February 28, Markins has $42.50 in cash and a checking account at the First National Bank with a balance of $369.50. He has lent money to J. C. Springer, who currently owes Markins a balance of $160.00.

In addition, Markins owes the Emporium Store $225.00 on an installment account, the Village Hardware Store $50.00 on a lawnmower, and Joe's Garage a bill for $37.50 for car repairs.

Markins can list all of his furniture, appliances, and other tangible assets as worth $1,800.00. He owes Ace Motors a balance of $160.00 on his car currently worth $895.00, and he has two life insurance policies with a cash surrender value of $800.00.

What would be R. M. Markin's net worth? $3,594.50

R. M. Markins
Balance Sheet
as of
February 28, 19 __

ASSETS		LIABILITIES	
Cash on hand	$42.50	Accounts payable:	
Account—1st Nat'l Bank	$369.50	Emporium Store	$225.00
Accounts receivable:		Village Hardware	$50.00
J. C. Springer	$160.00	Joe's Garage	$37.50
Furniture, etc.	$1,800.00	Ace Motors	$160.00
Automobile	$895.00		
		Total liabilities	$472.50
Life insurance	$800.00	Net worth	$3,594.50
Total assets	$4,067.00	Total liabilities and worth	$4,067.00

$4,067.00 – 472.50 = $3,594.50

Relates to
ME II: (c)(5)(E)(F)
on financial planning
and entrepreneurship

Independent Practice on Balance Sheets

Unit X: Assignment 31

1. A small store has assets of $12,500.00 and liabilities of $5,600.00. What is the proprietorship of the business? $6,900.00

   $12,500 – 5,600 = $6,900

2. A small newsstand has these assets: cash, $570.75; accounts receivable, $280.60; stock on hand, $1,620.00; and equipment and fixtures, $2,650.00. Its liabilities are accounts payable, $1,500.00; and note due to First State Bank, $500.00. What is the net worth of the newsstand? $3,121.35

Assets	Liabilities
$570.75	$1,500
280.60	+ 500
1,620.00	$2,000
+ 2,650.00	
$5,121.35	

   $5,121.35 – 2,000 = $3,121.35

3. On December 31, Hicks Jewelers has on hand $4,500.19 in coins, bills, and undeposited checks; $18,030.25 on hand in balance of account at Merchant's Bank and Trust; and inventory of $156,120.00 (cost price). It has customer accounts due and unpaid (receivable) totaling $7,322.50. The jewelry store owns a building next door valued at $212,750.00 and has taxes due on the property in the amount of $3,837.65. Hicks Jewelers owes accounts of $5650.50. Prepare a balance sheet for Hicks Jewelers as of December 31. Show the total assets, liabilities, and owner's equity.

Hicks Jewelers
Balance Sheet
as of
December 31, 19 __

ASSETS		LIABILITIES	
Cash on hand	$4,500.19	Accounts payable	$3,837.36
Merchant's Bank & Trust	$18,030.25	Taxes due and unpaid	$5,650.50
Accounts receivable	$7,322.50	Total liabilities	$9,488.15
Inventory on hand	$156,120.00	Owner's equity	$389,234.79
Net value of property	$212,750.00		
Total assets	$398,722.94	Total liabilities and owner's equity	$398,722.94

$398,722.94 − 9,488.15 = $389,234.79

4. Match the terms on the left to the statements on the right.

__i__ 1. asset
__a__ 2. balance sheet
__d__ 3. current assets
__f__ 4. equity
__e__ 5. fixed assets
__g__ 6. liabilities
__c__ 7. net worth
__h__ 8. proprietorship
__b__ 9. solvent

a. shows what the business owns, what it owes, and how much it is worth
b. term used to describe a company that has the ability to pay all of its debts
c. a synonym for owner's equity or proprietorship
d. can be converted into cash within a one-year business cycle
e. things the company owns that will be used for more than a year
f. the amount left over when liabilities have been subtracted from assets
g. the financial obligations that a company has to creditors
h. a synonym for owner's equity or net worth
i. anything a business owns that has value
j. all of the money spent by a business
k. being sued for injuries

Relates to
ME II: (c)(5)(C)(D)(E)(F)
on financial planning
and entrepreneurship

Guided Practice on Preparing and Using Graphs and Charts

Unit X: Assignment 32

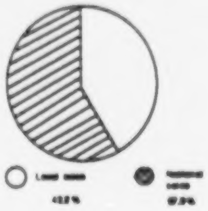
Match each of the following visualizations to the correct term, and mark the selection that describes it best:

__B__ 1. bar chart
  a. comparison
  b. trend
  c. relationship

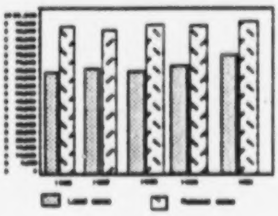
__C__ 2. graph
  a. comparison
  b. trend
  c. relationship

__A__ 3. pie chart
  a. comparison
  b. trend
  c. relationship

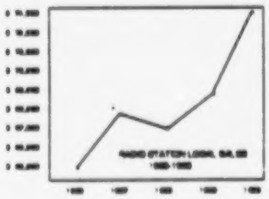
A.



B.



C.



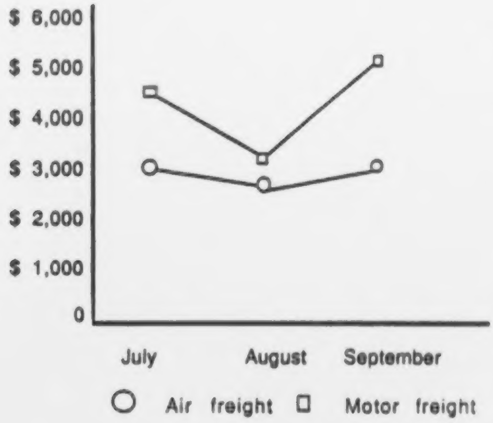
4. Explain why companies use visualization of data.

   It is easier to understand data when numbers are presented as a picture.

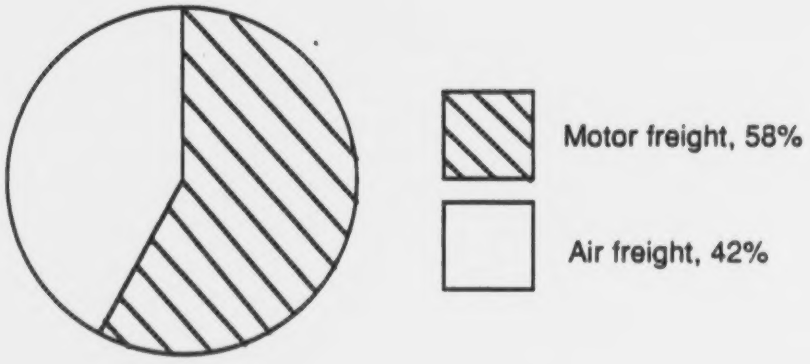
5. Using the following information, plot a graph showing the related costs of the two modes of shipment for the three months listed.

   Interstate Mercantile ships by both air freight and motor freight.

	Air	Motor
July	$3,200	$4,600
August	2,900	3,400
September	3,300	5,100



6. Using the same information, draw a pie chart comparing the amount spent on air freight and the amount spent on motor freight. The total amount is 100%.



Relates to
ME II (c)(5)(C)(D)(E)(F)
on financial planning
and entrepreneurship

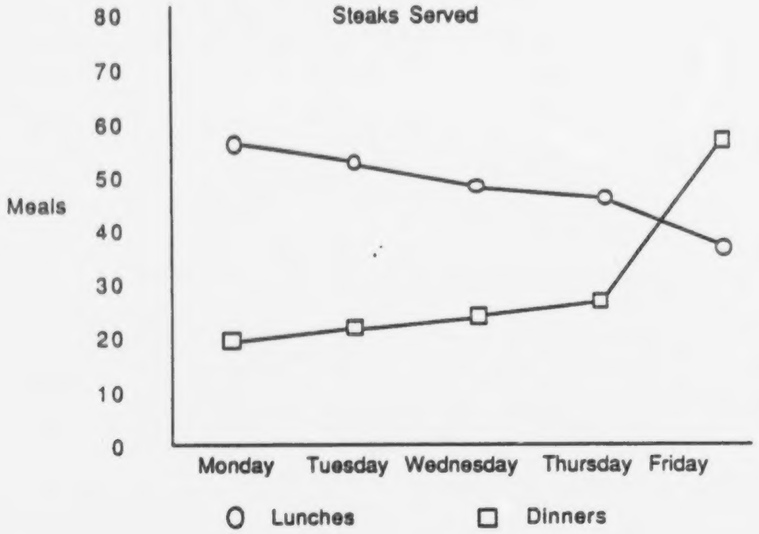
Independent Practice on Preparing and Using Charts and Graphs

Unit X: Assignment 32

1. Explain the differences in charts and graphs.

   Graphs show relationships; charts compare things.
   Bar charts have bars or columns which are not connected with a line, as in a graph.

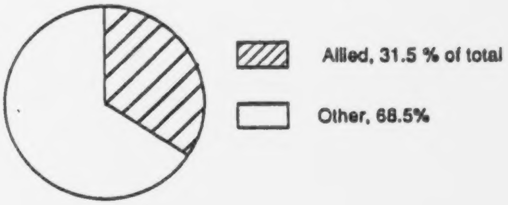
2. Interpret the information on the following graph. State three facts that you know by looking at the graph.



By looking at the graph above, I know that:

a. more steaks are bought at lunch during the first portion of the week;
b. approximately the same number of steaks are bought during the dinner hour on Friday that are bought during lunch on Monday;
c. there is a gradual decrease in the number of steaks bought at lunch as the week progresses with the number sharply dropping on Friday;
d. there is a gradual increase in the number of steaks bought during the dinner hour during the week with a significant increase on Thursday and a sharp increase on Friday;
e. employee scheduling would change radically as the week progresses; and
f. food orders would change radically for specific items used at specific times.

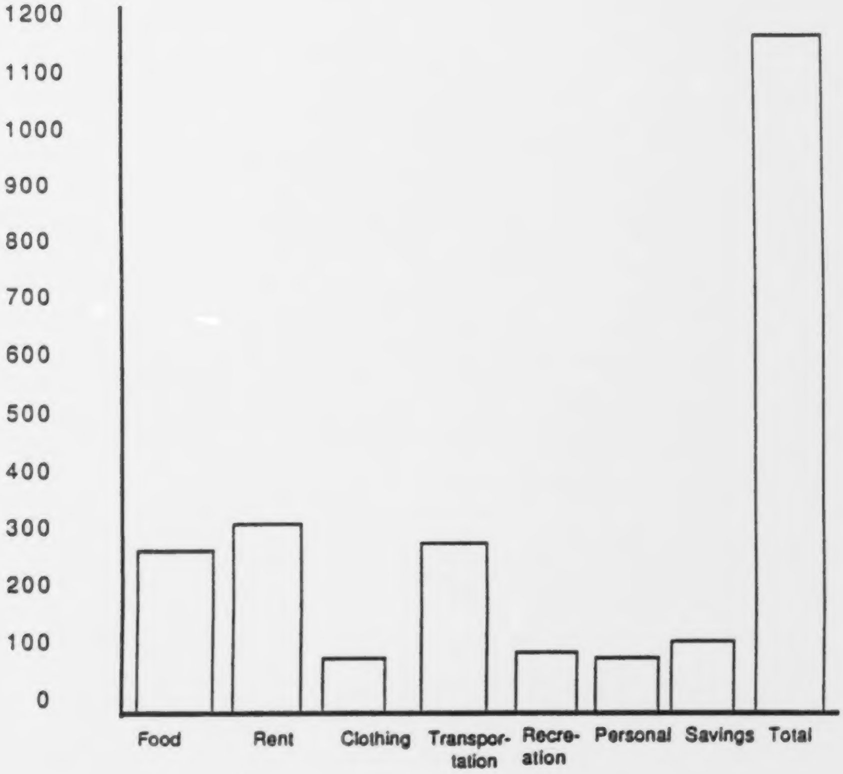
3. Goodall's buys merchandise from both Allied and Consolidated. Examine the following pie chart, and determine what percentage of Goodall's merchandise was bought from Allied during the month charted. 31.5%



4. Using the personal budget outlined below, draw a bar chart comparing the amount spent on each item to the total amount spent for the month.

Mindy Whitaker—Personal Budget

Food	Rent	Clothing	Transportation	Recreation	Personal	Savings	Total Amount
$250	$300	$75	$265	$85	$65	$100	$1,140.00



Common essential elements
(a)(6)(D)(E)(F)

Guided Practice on Checking Accounts

Unit XI: Assignment 33

Match the following terms to the appropriate statements:

a. bank statement
b. outstanding checks
c. signature card
d. cancelled checks
e. checking account

__e__1. money deposited in the bank by one person and from which money is taken to pay the individual or organization named on the checks written by that person
__d__2. checks that have been deposited, have cleared the bank, and have been returned to you
__a__3. a record sent to you by the bank reporting your balance, the checks cleared, deposits, and amount of fees
__c__4. on file with the bank giving authority for payment from account

Match the following terms to the appropriate statements:

a. outstanding checks
b. joint account
c. passbook account
d. cancelled checks
e. individual account

__c__5. usually a savings account
__e__6. checks payable on the signature of one person and one person only
__a__7. checks that you have written, but that have not cleared the bank
__b__8. be careful to sign signature card with the word *or*

Match the following terms to the appropriate statements:

a. payor
b. payee
c. stop payment
d. endorsement
e. reconcile

__d__9. authorizes transfer of ownership of a check.
__c__10. what you should do when checks are lost or stolen, you should
__a__11. signature at the bottom of the check
__b__12. person to whom check is written

Match the following terms to the appropriate statements:

a. overdraw
b. negotiable
c. joint account
d. reconcile
e. cosignature account

___e__13. requires two or more signatures on checks
___d__14. to make checkbook balance and statement balance come out even
___b__15. can be spent in exchange for something of value
___a__16. to write checks for money you do not have in the bank

17. The FDIC insures money in an account up to $100,000.00.

18. List three acceptable IDs for check cashing purposes.

    Possible answers are valid driver's license, credit card, military service cards, sometimes a student activity card.

19. Discuss advantages and disadvantages of using a checking account.

    Advantages—safe way to handle money; saves time; provides overall picture of where money goes; assists in keeping good records; helps establish a credit rating
    Disadvantages—requires one or two IDs; some businesses won't accept checks; a cost is involved; possibility of overdrawing

20. List four precautions to observe when writing checks.

    Never use pencil—always use ink or typewriter.
    If you make a mistake, tear check up. Indicate on stub in register that check has been voided.
    Be sure payee and amount are written before signing a check.
    Use checks promptly.

21. Discuss the six pieces of information that are needed to correctly write a check. List them in order of completion in the space below.

    The order is (1) current date, (2) payee(s), (3) amount of check in numbers, (4) amount of check in words, (5) item for which check was written, and (6) your name exactly as on signature card.

Common essential elements
(a)(6)(D)(E)(F)

Independent Practice on Checking Accounts

Unit XI: Assignment 33

For each of the following statements, indicate whether the statement is true (T) or false (F).

1. F The "funny looking" numbers at the bottom of the check are there for the bank and mean nothing to you.
2. T It is "OK" to date checks on holidays and Sundays.
3. T A joint account has two or more signatures on file at the bank. Any one of these signatures can be used on a check to authorize payment from the account.
4. F A postdated check is a check containing a date that has already passed.
5. T One should never sign a check until the payee's name and amount are completed.
6. F All banks have the same services available.
7. T You must be very careful to sign each check exactly as your signature appears on the signature card.
8. F Most banks will always honor your checks and will call or write to let you know that you need to deposit more money to cover them.
9. F A check remains good for up to 30 months after being written.
10. T If your name is spelled incorrectly on the front of the check, you should endorse it with the spelling that appears on the front, then the correct spelling beneath that.

Multiple choice: Choose the best answer by circling the letter to the left of that answer.

11. Which of the following is the least desirable endorsement to use on a check?
    [✓ a.] a blank endorsement
    b. a restrictive endorsement
    c. a transfer endorsement
    d. a corrective endorsement

12. Reasons for stopping payment on a check include all of the following except
    a. discovery of fraud
    b. checks are lost or stolen
    [✓ c.] you get mad at the payee
    d. payee does not fulfill agreement of payment

13. If you make a mistake when writing a check, you should
    a. tear the check up
    b. show on your register or stub that the check has been voided
    c. start over with a new check
    [✓ d.] all of the above are correct

14. When writing a check, the last thing the payor should do is
    a. write name of payee
    b. indicate what the check is payment for
    [✓ c.] sign his or her signature
    d. write in the amount of the check

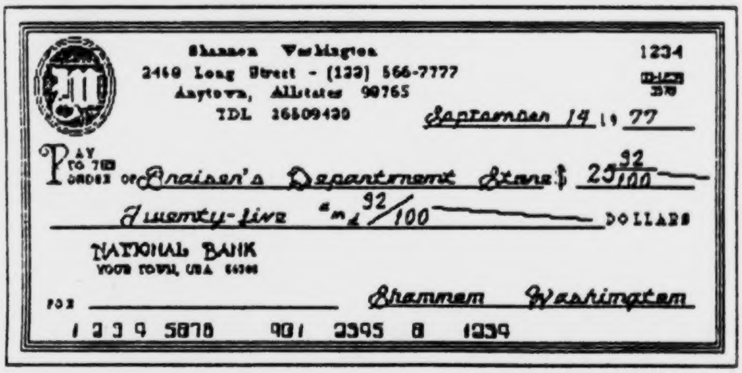
15. "For deposit only" is an example of a
   a. blank endorsement
   [✓ b.] restrictive endorsement
   c. corrective endorsement
   d. transfer endorsement

16. All monies deposited in a checking account should be recorded on the
   [✓ a.] check register
   b. passbook
   c. signature card
   d. none of the above are correct

17. Information that is preprinted on the front of your checks when you receive them includes all but which of the following?
   a. check number
   b. name of your bank
   [✓ c.] town in which the payee lives
   d. number of days it normally takes the check to clear your bank

18. On the deposit slip, checks being deposited are
   a. listed as currency
   b. added together and entered under "checks"
   c. deposited in a different deposit from other monies
   [✓ d.] each listed separately

19. Examine the check, written on September 4th, shown below. In which ways is it incorrectly written?
   Date's not current.
   Too much space to left of the written amount line.
   Item being purchased is not included.
   Number line has too much blank space.



Shannon Washington
2460 Long Street - (123) 566-7777
Anytown, Allstates 90765
TDL 26509430

1234

September 14 19 77

PAY TO THE ORDER OF Braisen's Department Store $ 25 92/100

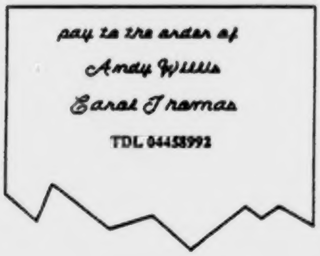
Twenty-five and 92/100 DOLLARS

NATIONAL BANK
YOUR TOWN, USA

FOR ______ Shannon Washington

1 2 3 4 5678 901 2345 6 1234

20. Identify the type of endorsement shown below. transfer



pay to the order of
Andy Willis
Carol Thomas
TDL 04458992

Guided Practice on Loan Applications

Unit XI: Assignment 34

1. Explain why commercial finance company interest rates are usually higher than those of other lending institutions.

   Finance companies tend to approve high-risk loans that banks turn down. Because their risk of loss is greater, their interest rate is higher.

2. Explain why credit union interest rates are usually lower than those of other lending institutions.

   The risk of loss is much smaller than for other institutions because the members actually own the credit union and it is formed within a profession or company.

3. Give examples of three kinds of collateral that might be used to secure a loan.

   Answers might be similar to these—a car, motorcycle, furniture.

4. You are considering signing a $6,000.00 car loan with a stated interest of 10% per year, borrowed for three years. The dollar value of the interest paid for the loan is $1,800.00.

   What would be the simple interest rate if the loan is repaid with one payment at the end of three years? 10%

   What would be the effective interest rate if it is repaid in equal monthly payments for three years? 19.5%

   $$\text{Simple interest rate} = \frac{\$1{,}800}{\$6{,}000 \times 3} = 0.10 \text{ or } 10\%$$

   $$\text{Effective rate} = \frac{2 \times 12 \times \$1{,}800}{(36 + 1) \times \$6{,}000} = 0.1946 \text{ or } 19.5\%$$

5. A loan agreement for a camcorder states that the total interest paid for a $1,105.00 loan, to be paid off in 18 equal installments, will be $140.00. What will the effective interest rate be? 16%

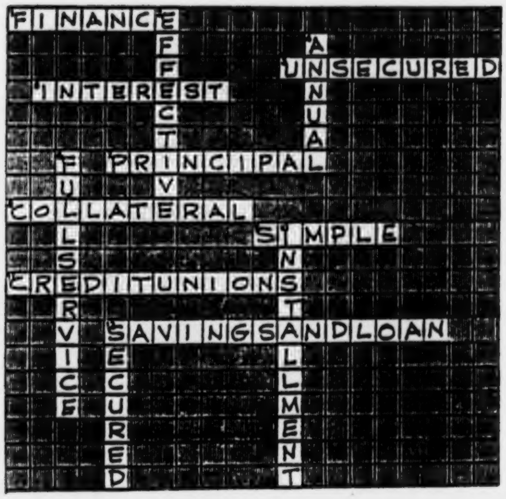
   $$\text{Effective rate} = \frac{(2 \times \text{annual number of payments}) \times \text{interest in \$}}{(\text{total payments} + 1) \times \text{principal in \$}}$$

   $$\frac{2 \times 12 \times \$140}{19 \times \$1{,}105} = \frac{3{,}360}{20{,}995} = 0.16 \text{ or } 16\%$$

Independent Practice on Loan Applications

Unit XI: Assignment 34

1.


FINANCE
EFFECTIVE
ANNUAL
UNSECURED
INTEREST
PRINCIPAL
FULLSERVICE
COLLATERAL
SIMPLE
INSTALLMENT
CREDITUNIONS
SAVINGSANDLOAN
SECURED

2. Compute the simple interest in dollars to be paid on a \$12,000.00 car loan with a stated interest of 9%, borrowed for five years and repaid at the end of the five years. \$5,400.00

Compute the effective loan interest for the same total and interest in dollars if the loan is to be repaid in equal monthly installments over five years. 17.7%

Simple interest rate in \$ = \$12,000 × 0.09 × 5 = \$5,400

$$\text{Effective rate} = \frac{2 \times 12 \times \$5400}{(60 + 1) \times \$12{,}000} = \frac{\$129{,}600}{\$732{,}000} = 0.177 \text{ or } 17.7\%$$

3. You are looking at a loan agreement that says the interest in dollars is \$120.00 for a loan of \$1,200.00, to be repaid in one payment at the end of the one-year period for which it is borrowed. What is the interest rate you will be paying? 10%

$$\frac{\$120}{\$1{,}200} = 0.10 \text{ or } 10\%$$

What would the effective rate be if you pay for the loan in equal monthly installments over the year? 18.5%

$$\text{Effective rate} = \frac{2 \times 12 \times \$120}{(13) \times \$1{,}200} = \frac{\$2{,}880}{\$15{,}600} = 0.1846 \text{ or } 18.5\%$$